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WALKS AND TALKS ON THE FARM.—NO. 14.

Agricultural editors frequently speak of the "Farmers' leisure season." I have not yet been able to discover any month of the year that answers the description. It is not found in the Spring, certainly not in the Summer, still less in the Autumn, and thus far I have found plenty to do in the Winter. The cattle and sheep require constant care. There is fodder to cut, corn to grind, wood to draw, and a score of little things that keep all the men on the farm constantly occupied. A city lady once remarked that she would not marry a farmer, as she did not like the idea of having him around the stove all winter. A farmer in vigorous health has no business in the house during the day, even in winter. There is plenty to do. If too stormy to work out of doors, he can find profitable employment in the barn or the tool-house.

The wire worm did considerable damage to wheat last fall in some instances in this neighborhood. J. C. Adams, of Alleghany county, writes me that "the best way to exterminate this pest is to summer fallow, or to put the land into some hoed crop. Corn is best, with a sprinkling of pumpkins, or beans, in case the wire worm destroys the corn. Cultivate thoroughly, leaving no grass roots or weeds for them to winter upon, and not a worm will be left to hurt the next crop." He says he speaks from experience, having had his spring crops ruined; corn destroyed and potatoes eaten up. One thing can certainly be said for this remedy: If it does not destroy the worms, it will help to clean and enrich the land.

At one of the Evening Discussions during the late State Fair at Rochester, Geo. Geddes stated that after trying the plan of chopping corn stalks, straw, &c., for cattle and sheep, he had given it up, and the machine which he had used for the purpose had lain idle in the barn for some years. On which T. C. Peters remarked that it was then on its way to his farm, in Genesee county. He had faith in cutting fodder. Geddes had not. On his farm he raised more straw than he knew what to do with, and his great object was to get it trod down into manure. How I envy him! I am short of straw, and I grudge every forkful that is used for litter. I sowed forty acres of wheat this fall, and put it in pretty well—for an editor; and if the bone-dust and artificials do any good, I shall have some straw even if the midge takes all the grain!

But this year I am short of straw, short of corn-fodder, short of hay—and I shall be agreeably disappointed if I can carry my stock through the winter. I wrote to Peters, telling him how I was situated, and asked his advice on different points. In reply, he writes:

"You have the machinery for cutting stalks, straw, &c. That is a good start. As to the steaming, I think if it can be done thoroughly it will pay, but it is a rather expensive operation. Now, if I was situated as you are, I would cut straw, stalks, &c., together, and wet it down with *warm* water; and to get it I would put down some gas pipe from the steamers to where I had the feed, and heat the water there. But after all, it is not a very great job to carry the water to the feed vat. You may calculate the capacity of your mixing vats by three bushels per day for each cow or horse, and about seven sheep to a cow. By feeding more meal, you can get along with two bushels of cut feed per day. Buckwheat is not a cheap feeding grain. If I had corn, barley, oats and peas, I would mix and grind. No particular rule is necessary, except to make the kinds hold out about equal. The best feed to make milk I ever tried, was four quarts of meal and four quarts of bran scalded together for a daily feed, with cut stalks, also scalded. If cows have any milk about them, this will bring it out. If you do not keep hogs, give the cows the dish water in their slops. Where you have solid feed, like meal or provender, and can scald it, half bran makes a very cheap and nutritious feed. I have never tried cooking feed for horses, generally giving them their grain by itself and their cut feed in the same way. Any way that makes feed palatable to cattle will be a good one, and of that you can judge when on the spot. I have never tried sheep on cut feed, but should think they would do well as soon as they got used to it. I shall buy two or three as soon as I can, in order to try them. If you have plenty of grain, it is no great *knack* to bring through a pretty large stock well on straw and roots. A little watching and changing the feed will be necessary, perhaps, but you will be surprised at how small a quantity of coarse fodder suffices, when it is cut and

properly prepared. Put the smallest quantity of salt in your water, just enough to make it brackish, and the cattle and horses will eat up good. What they leave we put in a box and sprinkle some meal on it, and give to those we want to have the most grain. A little practice will soon enable you to save all the *crumbs*."

I have been feeding sheep with cut straw and corn stalks, and they eat it up quite clean, leaving only a few butts in the trough. They do not waste half as much as when fed uncut. I give them a few roots and about three pecks of meal to a hundred sheep per day. I have about 150 bushels of buckwheat, and am feeding it out, but I find the sheep much prefer the corn meal. Corn is a glorious crop—good to clean the land, the stalks make excellent fodder, and the grain is rich in oil and starch.

I was thinking to-day, as I was feeding the sheep corn stalks and corn meal, whether instead of letting the corn ripen it would not be better to cut it while green. In the case of timothy hay, it is conceded to be poor economy to let it ripen its seed. Why is it not equally so in regard to other crops used as food for stock? If you wish to sell the corn, or feed it to hogs, that is another question; but when you feed the grain, as well as the straw or stalks, to cattle and sheep, what is the advantage of letting the crop get ripe? There can be little doubt (though the point is not settled) that there is a positive loss of nutriment by allowing grain crops to get ripe,—in other words, that the grain and straw together do not contain *as much* nutriment as the crop would if cut after it had attained its growth, but before the ripening process had commenced.

I say the point is not settled. Dr. Voelcker, in his investigations of the "Composition and Nutritive Value of Straw," found that oat straw, from a crop cut at three different periods, viz., when "green," when "fairly ripe," and when "over ripe," contained less and less nutriment as the ripening process proceeded. Of soluble protein compounds, the green straw contained when dry, 6.56, the ripe, 3.13, and the over-ripe, 1.54 per cent.; of sugar, gum, mucilage and extractive matters, the green contained 19.08, the ripe 12.59, and the over-ripe 3.79 per cent. The total per centage of nitrogen in the dry state was: green 1.62, ripe 0.76, over-ripe 0.68.

These are very remarkable results. The amount of protein or flesh forming compounds in *green oat straw* is as large as in ordinary meadow hay. The greater portion of this matter, too, is found in a soluble condition, and would therefore be easily digested. As the straw approaches maturity, this nitrogenized matter dwindles down to less than one-half. "The question arises," says Dr. V., "what becomes of all the nitrogenized matter, which disappears with extreme rapidity when our cereal crops arrive at maturity? Although I have not made any special experiments with a view of ascertaining this point, it does not appear to me likely that this matter is all stored up in the grain; and I have not much doubt that, as observed by Messrs. Lawes and Gilbert, a considerable loss of nitrogen takes place in the growth of corn crops, which loss is particularly noticeable when the crop arrives at maturity."

Of sugar, gum, and other matters soluble in water, not less than 19 per cent. are found in the green straw, against less than 4 per cent. in the over-ripe straw. These are the most valuable nutritive constituents, and the results show that the straw of oats cut green is four times as nutritious as that allowed to get over-ripe. The sugar, etc., of the straw is turned into indigestible woody fibre. The green straw contains only 25 per cent. of this substance, while the fairly ripe straw contains 32, and the over-ripe 43 per cent. of this indigestible matter.

The Deacon says it does not pay to feed "merchantable grain," and he is probably right. We cannot afford to elaborate the food of cattle and sheep so much. Speed is obtained at the cost of power. It is pleasant to go fast, but it is rather expensive. Cattle and sheep like grain, but it is questionable whether the same amount of nutriment cannot be obtained at a less cost in less concentrated food.

Mr. Peters says:

"The amount of corn fodder which will grow upon an acre is truly fabulous, and no one will believe it until they have had occular demonstration. It is not a very large thing to grow 200 tons of green fodder to the acre. I think it possible to grow 250 tons, with care and a good season, but it seems so extravagant, that I usually say 100 tons may be grown. I once tried a small experiment on sowed corn, but it was only a small one, and not conclusive on a large scale. I sowed some Illinois corn one year. When it had got well into the tassel, I took the average of perhaps thirty square feet, and selected three stalks, which were under an average, growing upon a square foot. These weighed nine pounds. There were more square feet that had over four stalks than under. A good many had six, larger than the ones I selected, so that it is easy to grow at least nine pounds of green food to the foot. This would make not far from 200 tons. I think I found a shrinkage of nine-tenths in the stalks exposed to the wet run and cured to the worst possible advantage. If you can save a tenth, it makes a very respectable *pile* of fodder for winter from an acre."

This method of estimating the amount of fodder from an acre of corn is not accurate. It is surprising that some one has not weighed an acre, so as to ascertain the exact quantity.

It seems strange to hear the former editor of the "Wool Grower" talking of buying a couple of sheep, to experiment in feeding them cut fodder. He is

feeding 40 head of cattle, but I suppose from this remark that he keeps no sheep. Like all experienced sheep men, he has not much faith in the present excitement in regard to "American Merinos." I asked him whether he thought sheep could be kept solely for wool where land was high, and where an advanced system of cultivation was adopted. I know so little of fine-wool sheep that I dare not trust my own judgment in the matter. I have always thought, however, that fine-wooled sheep belong essentially to a low system of farming, where land is cheap and markets distant. Peters seems to be of the same opinion. Though always a fine-wool man, he says:

"I have no faith in any kind of sheep farming that does not make the carcass of the first importance. Wool should only be secondary. We may have a panic and excitement, as for the past year or two, in fine wool, but it can't be permanent. A hungry population cannot be fed on wool, and mutton will soon take the front rank."

A correspondent of the Boston *Cultivator*, at Southville, N. Y., writes that he has "the past season raised a crop of turnips at the rate of 50 tons per acre. Also a few with extra pains that weighed from 8 to 18 lbs. a turnip, equivalent to 130 tons per acre, exclusive of tops."

I once heard Mr. Lawes say he would go fifty miles to see a crop of Swede turnips that weighed 30 tons per acre. I presume he would cross the Atlantic to see one of 130 tons per acre! He has probably raised more crops of turnips than any man living, and had come to the conclusion that the reports of 40 and 50 tons of turnips per acre were based on estimates, and not on actual weights. The way such big crops are obtained (on paper) is very simple. You weigh a dozen or so of turnips, and find that they average 8 lbs. each. If the rows are 27 feet apart and the plants 10 inches apart in the rows, there would be 23,232 plants per acre; and at 8 lbs. to each turnip, we have 185,856 lbs., or nearly 93 tons per acre.

If we should calculate how many plants of wheat would grow on an acre, and how many ears each plant would grow, and how much they would yield, and then figure up the amount, we should probably get 200 bushels per acre. But we all know that such a crop has never been grown.

When 50 tons of turnips are grown on an acre, the whole crop actually grown and measured, I shall have more patience with such statements as the above.

Our quiet talks on the farm, in some way or other, get into the *Genesee Farmer* every month, and they tell me at the office that they are amazingly popular. They say that a great many of the subscribers write that they like them better than anything else in the paper, and hope that they will be continued.

John Johnston wrote me some time ago that he was glad to hear that I was *living* on the farm. He thought I still resided in the city. (You know people "reside" in the city, and "live" in the country.) He thought that "the Walks and Talks on a Farm were more ideal than real." I was quite amused. I could no more "make them up" than I could write a book or preach a sermon!

I have always thought that one reason why so few turnips are raised in this country is the want of good drills for sowing the seed on ridges, with an attachment for dropping superphosphate, plaster, &c., at the same time with the seed. Sanford Howard, of the Michigan College, writes me that "this opinion deserves attention," but intimating at the same time that it will not pay to purchase such expensive machines unless we make up our minds to go extensively into the business of raising roots. I do not see, however, why they need be so expensive, but even if such a drill should cost $50, it would pay for itself in sowing ten acres of roots in a single season.

I am rather a new convert to turnip culture. I had supposed that our dry climate was not well adapted to the growth of root crops; and that even if we could grow them to advantage, the crop is so heavy in proportion to its nutriment that it would hardly pay to store them for winter use. But I was so successful in raising turnips last season, that I am satisfied there is no difficulty in getting good crops; and in regard to storing, if the buildings are properly arranged for feeding them out in a basement stable, with cellars alongside into which the turnips can be dumped from a cart on the outside, the labor is not very great. And that it needs no argument to prove the advantages of feeding some succulent food to stock during our long winter months,

Let us have a good drill for sowing the seed on ridges with superphosphate, and my word for it, turnip culture will soon become a leading feature of our agriculture.

This afternoon we have been grinding peas with a new mill I got a few weeks since from R. L. Howard of Buffalo. The grinding is done by four vertical iron plates rubbing against each other. It works to perfection. Two horses grind pretty well, but as peas are hard to grind, and as I want the meal fine, we put on four horses. We started at a quarter past two. I attended to the mill myself. I did not say anything to Michael, but as he saw me looking at my watch and marking down each half-bushel I put in the hopper, he evidently concluded that I wanted to ascertain how much we could do. He

kept the horses on a lively walk, and I was not slow in letting in the peas. We stopped once for five minutes to oil the machinery, and then kept on till twenty minutes to six. In this time we ground twenty-eight and a half bushels, or about nine bushels an hour.

It grinds corn to perfection, and buckwheat and oats run through it at a great rate. I would not be without it on any account. It is not merely more economical to grind your own grain, but it is far more convenient. If you send it to the grist mill, you either have to wait several hours or go for it the next day.

I have just been reading the report of the Cheese Convention at Utica. I have never had much faith in the permanency of the "Factory System." This question of permanency was alluded to by Mr. Willard in his address, and certainly nothing was brought forward tending to show that the system will be profitable when we return to specie and old prices. The average price of cheese sold by the different factories the past season must be taken at 20 cents per lb. With gold at $2.25, which may be taken as the average of the past year, this would give us not quite 9 cents per lb. for cheese in specie. The extra 11 cents per lb. now obtained is purely fictitious. Take this away, and where would be our "Cheese Factories?"

A resolution was introduced that 1¼ cents per lb. should be charged for making the cheese the coming season. Add to this the expense of carrying the milk to the factory, and it takes out no inconsiderable slice of the profits.

A number of factories made a report of their operations during the season. The first one on the list is one at Norwich, Chenango Co. The average number of cows was 400; amount of cured cheese, 114,246 lbs.; average price got for cheese, 20.62 cents per lb.; 9.9 pounds of milk required for one pound of cheese.

Taking these figures as a basis, each cow gave about 1,500 quarts of milk during the season, and made 285 lbs. of cheese. If the season was seven months, or say 200 days, this would be 7½ quarts of milk per day for each cow, and nearly one and a half lbs. of cheese.

Now suppose a farmer lives only two miles from a factory, and keeps fifteen cows; he has to harness up a team every morning for two hundred days to carry 112½ quarts of milk to the factory. I think this would be worth 75 cents a day, and consequently amounts to $150 a season. The fifteen cows produce 4,275 lbs of cheese. The charge at a factory for making this, at 1¼ cents per lb., amounts to $64.13. The two items of taking the milk to the factory and the charges for making it into cheese, amounts to $214.13. Now as long as cheese sells for 20 cents a lb., this kind of work may be profitable; but let it fall to its nominal price—the price it now brings in gold—or say 9 cents per lb., and these expenses will eat up all the profits. The produce of the fifteen cows would (4,275 lbs. cheese at 9 cents) amount to 384.75; and deducting the $214.13, would leave only $170.62 to pay for milking and keeping the cows! It may be said that when we return to specie the cost of manufacture will be less, but admitting it to be so, it would seem that the expenses would still be so large as to leave little for keeping the cows.

It will be said that cows ought to give double the above amount of milk and cheese. This is true, but it must be remembered that these are *actual* results

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Mr. David Humphrey, of Spring Creek, Ind., has sent me a few seeds of a fall squash, which he says comes nearer to a sweet potato than anything he has ever tried. It is very pleasant to receive such gifts from distant friends.

Speaking of squashes, Mr. Paul P. Green, a Pennsylvania blacksmith, writes me that he put a pumpkin seed in a dung heap last spring. The vines ran over the heap, and in the fall bore 21 pumpkins, 12 of which weighed 160 lbs., and 5 others weighed 40 lbs. They dropped off the vines.

Beef cattle took another upward jump in New York this week. There were few good cattle in market, and the best sold for 24 cents per lb.! Considering the quality of the cattle, this is said to be the highest price ever paid in New York. The advance was even greater on inferior cattle than on those of extra quality. The week before, the range of prices was from 9 cents per lb. to 22 cents. This week it was from 14 to 24 cents. When the market is well supplied, inferior cattle are neglected, and the price gives way more than on good animals. When will farmers see that it is very poor economy to raise and feed poor cattle? One would think that these market reports, sent to all parts of the country every week, would open the eyes of all who are not absolutely blind to their own interests. It is just as easy to have a steer that will dress 10 cwt. at three years old as a miserable scallawag that dresses only 5 cwt. The one would bring, at last week's quotations, $220, and the other only $45! I have frequently heard people complain that our State and County Agricultural Societies offered more liberal premiums for cattle and sheep than they did for implements and machines. Even if this were true, (which it is not,) it would be perfectly proper. Breeding is slow work, and when you succeed in raising one that takes a prize, you cannot, as is the case with the implement or machine, make a thousand just like it and sell them at high prices. Our Societies should do all in their power to encourage the breeding of good stock.

THE GOOSE—ITS VALUE—ITS USEFULNESS, &c.

WRITTEN FOR THE GENESEE FARMER BY C. N. BEMENT.

THE value and usefulness of geese is scarcely calculable. Had it not been for the quill of this bird, much of the ignorance of the dark ages would still overshadow the world. Is it not to the agency of it that we are indebted for ninety-nine hundredths of the books in existence? Were not the 500,000 volumes in the Bodlean library of Oxford; the 600,000 volumes in the library at Lyons; the 400,000 in the Royal library of Paris; the 300,000 volumes in the University library of Gottengen; and the 100,000 in the library of Harvard College, as well as many thousands, aye, millions of volumes, too numerous to mention, all or nearly all written by the quills of geese? Let these and all their kindred illuminations become extinct, and where would be our literature and our science, as needful in the realms of mind as the material sun in the Material creation? True, the present century, abounding in novelties, is now furnishing us with pens of steel, and silver and gold, in no less profusion than were the locusts of Egypt; but, still, give me in preference, says a writer, to all such trickery, the quill of an old white gander.

And the goose has other claims on our affectionate consideration. Ask the gouty old man, and fidgety old woman, which is the chief alleviation to their aching bones, and they will tell you it is an old-fashioned bed filled with feathers and the down of geese. How many millions of persons consider this one of the greatest of human luxuries! Who can tell how many midnight watchings it has lulled into the sweetest slumbers? Who can tell how many fretful, crying infants it has soothed into sweet languor of a quiet repose? If there were not untold charms in the feather bed, would it have so many votaries? Would such multitudes be clinging to it twelve hours out of twenty-four, when two-thirds of that time are sufficient for rest, were there not a magical witchery about it found nowhere else?

Recently, however, there has been gotten up a crusade against feather beds as well as against goose quills; and the whole object seems to originate in a conspiracy to drive from the pale of public favor the bird which produces them.

The main profit of the rearing of geese, is in their flesh. So highly prized is the meat of this bird, that a man of Norwich, England, annually fattens thousands for the London market. It is stated that occasionally he has as many as two thousand on his extensive premises at the same time. They are collected from all parts, wherever to be obtained. Some are raised in England, more are from Holland, but the greater part procured from Prussia. For ourselves, we prefer the flesh of a young, fat goose to that of the turkey. Others may have a different preference. In matters of taste, there can be no conclusive argument. All have a right to their fancy.

It is a common opinion that geese are silly and stupid. Hence, if a biped in pantaloons or petticoats is peculiarly deficient in common sense, he or she is dubbed with the cognomen of goose-head. According to the prevalent apprehensions of goose-ology, such designations, in numerous cases, would be very appropriate; but oftentimes, when applied, we think the feathered gentry, of the two races, is the more slandered.

The goose has for many ages been celebrated on account of its vigilance. The story of the saving of Rome by the alarm they gave, when the Gauls were attempting the Capitol, is well known, and was probably the first time of their watchfulness being recorded, and, on that account they were afterwards held in the highest estimation by the Roman people. The story is simply this:—That while the watch-dogs and sentinels of the city at that hour of midnight, were either asleep, or were remiss in duty, a few of the enemy scaled the precipitous and perilous heights which led to the Capitol. The geese, however, heard the noise, sounded the alarm, commenced cackling, and wakened the consul, Marcus Manlius. The alarm was immediately given, many of the garrison were collected, and consequently the assailants were repulsed with a fearful slaughter. And it is certain to all acquainted with the habits of the bird, that nothing can stir at night, nor the least or most distant noise can be made, but the whole flock are aroused, and begin to hold their cackling converse; and on the nearer approach of apprehended danger, they set up their more shrill and clamorous cries. Even the cunning and stealthy fox is almost always foiled in his schemes for a late supper on goose. He is too wily to fail in making a sudden retreat whenever the old gander wakes up the dog or the wearied farmer; for he seems to have an unconquerable aversion to the smell of gunpowder, or the sharp, white teeth of that quadruped. On account of this trait in the character of the goose, it is by many persons esteemed the best of all country protections against the depredations of horse thieves and burglars.

The goose has been supposed as long lived as the swan, and numberless instances have been recorded of their having outlived the age of man. Moubray, indeed, mentions as an established fact that there was, in 1824, a goose living in the possession of a Mr. Howson, in Lincolnshire, England, which was then upwards of a century old. It had been throughout that term, in the constant possession of Mr.

Hewson's forefathers and himself; and, on quitting his farm, he, with a feeling which does him credit, would not suffer it to be sold with the other stock, but made a present of it to the incoming tenant,—"that the venerable fowl might terminate its career on the spot where its useful life has been spent such a length of days."

THE FARM HOMESTEADS OF ENGLAND.

SUCH is the title of a magnificent work recently published in England, containing a "collection of plans of English homesteads existing in different parts of the country, carefully selected from the most approved specimens of farm architecture, to illustrate the accommodation required under various modes of husbandry, with a digest of the leading principles recognized in the construction and arrangement of the buildings.

"The work fills a large quarto volume, containing full plans and descriptions of 24 of the best homesteads in England. The Royal Flemish farm homestead is the first of the series. It illustrates the plan of covered yards, which is one of the foremost methods now adopted by farm architects. There is here accommodation for 12 horses and 100 head of cattle. Thorney farm, in Cambridgeshire, the property of the Duke of Bedford, is then described. The homestead here is on the plan advocated by Professor Low, where the buildings, classed according to their uses, are arranged systematically in a long rectangle, with the open yards facing south. The parallelogram has this advantage, according to Mr. Mein, who erected these buildings, that where brick is the material used, as the shelter sheds divide the yards, they by their weight of roof protect the division walls from damage occasioned by the pressure of manure or the rubbing of heavy stock. Thorney is a fen farm of 500 acres. There is accommodation here for 76 head of cattle, in a succession of yards arranged end to end in a long parallelogram. Brickden New Farm, the property of Colonel Linton, has a simple homestead accommodating 40 cattle and 12 horses. The buildings are here arranged around a square divided into two yards by a central detached piggery. In the Maisemore farmery, near Gloucester, which is adapted mainly for the accommodation of stock, the central division is a main portion of this accommodation—the whole ground plan forming a trident, of which the central tine is thicker than the other, providing two rows of boxes. The North Brook farm, at Kirtlington, near Oxford, is another capital illustration of the covered yard system, or rather of the combined covered and open-yard plan, in which provision is made for all kinds and ages of stock. Toothill farm, the property of Lord Palmerston, is a trident arrangement, with a short prolongation of one of the side row buildings for the accommodation of horse-power, gangway and hay loft. Uphampton farm, near Shobdon, Herfordshire, is an instance of covering the ground plan by a lower and closer roof. There is here accommodation for 100 head of stock, and elaborate farm machinery for the preparation of food, threshing of produce, cider making, &c. The whole cost, with machinery, 4500*l*., or 8*l*. per acre of the farm, of which it is the very complete equipment. Longleat Park farm, in Wiltshire, is furnished with capital buildings by Mr. Wilkinson, architect, of Oxford. They cost 7,000*l*., and include large covered yards, stalls, boxes, barn and food stores, piggeries, &c. There is accommodation for 18 horses, 17 cows, 14 fatting beasts, 30 pigs, and 30 head of loose cattle. The Tattenhall Hall farm, in Cheshire, is an extremely well designed and very original arrangement, by which the labor of a large cow-house and dairy is reduced to a minimum. It accommodates 80 cows and 26 other stock, besides nine horses and many pigs; and the cost was only 1600*l*. The main feature is the central cow-house, with barns and food-houses, all in convenient connection. Stables and cart-sheds are detached. Many other examples of good homesteads are given, and with reference to each, the character of the farm—its mode of cropping—its quantity of stock—the character of the soil and of the rainfall—and the cost of the erection is given. Then follows a chapter on farm machinery, with particular descriptions and elevations of Lord Bateman's machinery at Uphampton, and of Mr. Hegan's machinery at Dawpool, and of Mr. Garth's machinery at Haines Hill, and of Mr. Page's machinery at Southminster. A chapter follows on farm-houses, with ample illustrations, in which the same rule is followed of giving instances actually erected—and another on laborers' cottages, with a collection both of examples and designs.

"The rest of the volume contains a digest of the principles recognized in the construction and arrangement of approved farm buildings, in which the facts so industriously collected and so perfectly presented to the reader in the former part of the volume, are collated and discussed, in order to bring out the principles which should guide the reader in adapting any of the examples before him to his own particular circumstances."

REMEDY FOR CHILLBLAINS.—At this season of the year many are troubled with chillblains. When they come in from the cold and seat themselves by the stove the feet begin to itch most intolerably, and swell. Now, I suffered much and tried many things, till, as a last resort, I applied *kerosene oil*. Two applications cured them up. Try it, sufferers. J. L. HERSEY.

A NEW VIEW OF THE ACTION OF GYPSUM OR PLASTER.

MONSIEUR DEHERAIN has been lately conducting some very important experiments to show in what manner the absorption of potash by plants is really effected. The experiments are in fact so important that we hasten to give them all publicity in our power.

In the first part of these researches the author points out how and for what crops the farmer and the gardener may apply gypsum with great advantage; and, on the other hand, how they may be at the expense of applying it with no advantage at all. This, therefore, is an important matter, deserving of serious consideration. We need not enter into all the minute details of the elaborate and carefully-conducted chemical analyses and experiments by which the author arrives at his conclusions; but we shall state sufficient to call attention to the subject.

Farmers (says M. Deherain) have long been aware of the remarkable effects produced by gypsum on artificial meadows; they admit that it increases by one-third or even by one-half the crops of clover, lucerne, and sainfoin; but what distinguishes this substance from others that are employed for promoting vegetation is its great effect on leguminous plants, and its having none whatever on cereals. M. Deherain's experiments proved—That gypsum applied to arable land does not assist nitrification: no nitric acid being formed in consequence of its application. That moreover it does not promote the formation of ammonia. But that it does promote the solubility of potash buried in the soil.

If we examine, in the first place, what plants are benefited by gypsum, we shall find that they are such as are rich in potash, namely leguminous plants, especially clover, sainfoin, and lucerne; and the vine, which takes up a considerable quantity of potash from the soil, is also manured with gypsum in some countries.

An old observation of Schwertz is very much in accordance with this view of the subject. That agriculturist asserted that gypsum cannot promote the growth of clover on certain stiff soils; but he adds, that its unsuitability is frequently overcome by manuring with ashes. Gypsum, in fact, does not create potash, it can only set it at liberty, and render it soluble; and if the potash is entirely absent the gypsum has no effect; but ashes themselves contain potash, and give to the soil the element without which leguminous plants could not grow.

Some experiments have shown that the potash becomes soluble almost immediately after the gypsum has been applied. This explains why agriculturists recommend the application of gypsum to the growing crop rather than to the soil before sowing. In either case, it seems that gypsum acts only on the soil; but if it liberate or render soluble the potash whilst there are no plants to take the latter up, it may be carried off by rains and lost; but if, on the contrary, the plants are in a growing state, potash will be absorbed by them as it becomes dissolved under the influence of the gypsum.

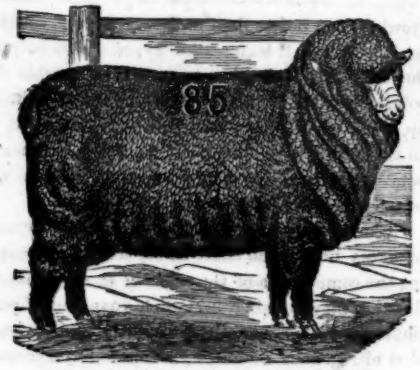
"I have stated," says M. Deherain, "that gypsum produces little or no effect on cereals. If we examine the composition of the ashes of those plants, we find that they contain considerable quantities of phosphates and large quantities of silicia, and we know that nitrogenous manures are absolutely necessary for them. Now, we have seen that gypsum neither promotes the formation of ammonia nor that of nitric acid, and we have stated that the solubility of the phosphates in weak acids is not increased by gypsum; whilst experiments prove that the latter acts with far less energy than lime in rendering silica soluble. It thus appears that none of the elements of cereals is rendered more soluble by gypsum.

"Nitric acid, soda, chlorine, and sulphuric acid are but little retained by arable land. They are chiefly found in the water that runs off by the surface, and in that of the drains in well manured land; but potash, ammonia, and phosphoric acid are retained in the soil. Gypsum and lime are employed to dissolve the last three elements, and although the actions of these have some points in common, yet in others they are widely different.

"The object of supplying gypsum to arable land is to liquefy the soluble salts which the soil usually retains, and permit them to be dissolved from the soil by water, so that they can be absorbed by plants. In this way, to use an expression now usually adopted, we may consider gypsum as an assimilating agent.

"The action of lime is not entirely similar. It attacks insoluble matters and transforms them. I still uphold what I stated some years ago on the effects which it exercises on the insoluble phosphates. M. Boussingault has likewise shown that lime attacks insoluble nitrogenous matters, and renders them capable of assuming the form of ammonia; lime, then, is also an assimilating agent, but its action extends to insoluble matters. It acts by chemically decomposing certain substances, and causing them to take a different form. Gypsum, on the contrary, seems to act physically by setting free soluble substances that are shut up in the soil. As lime is the assimilating agent of the phosphates and of nitrogen in the state of ammonia, so gypsum is the assimilating agent of potash."

To us it seems that these very curious statements are of at least as much interest to the gardener as the farmer.



TODD'S STAMPS FOR MARKING SHEEP.

This cut represents a sheep marked by stamps invented by A. Todd, Jr., of Ontario, N. Y. While the plan for numbering and registering sheep is not new, yet it is not generally practised by keepers of sheep. We have before us a set of the digits from 1 to 0. One of these figures is given in the following cut. The figure is large, with a stem upon its upper surface, as they all have, and when dipped in good coloring matter and stamped upon the shorn or unshorn sheep leaves a distinct impression, as seen above.

Mr. Todd says: "At shearing time I carefully examine every sheep as to form, (before and after shearing,) length of staple, quality of wool, weight of fleece, &c., all of which is noted for future reference; and there is no time when so thorough an examination can be made as at shearing. It is almost impossible to select from a flock of sheared sheep, without numbering and registering, such as should be disposed of or kept for stock. Refer to the register and you can readily select the ewes having the finest quality of wool, the longest staple, the heaviest fleeces, &c. Using such ewes for stock, as like begets like, it is evident a flock can be very rapidly improved. Sheep numbered as shown in the cut above, save much time at yeaning; as, for instance, No. 58 may refuse to own her lambs. If the sheep are in the field, the lamb may be taken to the house, and at night, when the sheep are yarded, one can readily select No. 58 from the flock. If a sheep is lame, drooping, or from any other cause requires special attention, it can at any time be selected from the flock, though the flock may or shall consist of hundreds. The stamp represented by the above cut is probably the most convenient form in use. By holding the stamp handle precisely like a pen a perfect impression is made, whether the wool is long or short. The size of the stamp is 3¼ inches."

Further information relative to this improvement may be obtained by addressing Mr. Todd, as above, who will furnish an illustrated circular containing full directions for marking, registering, composition to be used, &c. Mr. T. will send a set of figures by express, charges paid, for $2.25; the same with the initials of purchaser, $2.50. Two sets, $4.00; four sets, $7.00; six sets, $9.00, Initials 25 cents additional per set.

POULTRY MANAGEMENT IN FRANCE.

In some districts of France the farmers appropriate rooms called "couvoir" for their setting hens, round which are laid planks raised on tressels about 18 inches from the ground; on these planks are placed little baskets of osier, close made at bottom and round the sides, but with widely barred tops; each of these baskets contain one hen. Some of these couvoirs are adapted to hold from 300 to 400 hens; which are all taken off at intervals to feed, and to have their legs washed and cleansed. The hens are generally set in lots of from 6 to 10, so that at hatching time the broods may be increased or diminished, according to the success of each hen. The coops in use for the broods are large, and a hen is often allowed from 18 to 24 chickens. As fast as the chickens are hatched they are taken with the hen that is selected to act as mother to them to an orchard or enclosed space, and are there fed and tended until big enough to shift for themselves.

Make your own Neats-foot Oil.—A correspondent of the *Germantown Telegraph* tells what they do with beeves' legs in his family:

"The hoofs are chopped off, and the other portions are cracked and boiled thoroughly. From the surface of this boiled mass, about one pint of pure *neats-foot oil* is skimmed, which is unsurpassed by any other oleaginous matter for harness, shoes, &c. After the oil is taken off, the water is strained to separate from it any fatty particles that may remain, and then it is boiled again, until upon trying, it is found it will settle into a stiff jelly. It is then poured into flat-bottomed dishes, and when cold cut into suitable sized pieces. It hardens in a few days, and you will then have a very fine article of *glue*, free from impurities of every kind, sufficient for family use for a twelve-month.

"By taking a portion of this glutinous substance before it becomes too thick, and brushing it over pieces of silk, you will have just as much *court-plaster* as you desire, inodorous, tenacious, and entirely free from those poisonous qualities which cause (as much of the article sold by apothecaries does) inflammation, when applied to scratches, cuts, and sores."

SALT FOR STOCK.

EDS. GENESEE FARMER: Having noticed an article occasionally in the *Farmer* on the subject of salting stock, and in the January number an extract from an article in the Germantown *Telegraph*, advising farmers not to give salt to stock, I wish to say a word on the subject:

1st. We should consult the natural taste of the animal. If salt be not healthy, and even necessary, how is it that they so crave it? Deer and buffaloes, in a wild state, go long distances for it. Man in all countries uses it. Cattle on the seashore drink the seawater. If not really required by their systems, why do such animals so universally seek it?

2d. Universal practice. Men always use it when it can be obtained. They as invariably give it to their cattle. Is it possible a practice so general, and coming down to us from the remotest times, can have no foundation in the necessities of the animals themselves?

3d. My own limited observation and experience.

I find my sheep do not eat as well when they are without salt as they do when they have a regular supply. I have a salt-box in my sheep shed, in which I aim *always* to keep salt. (I wish all my stock were as steadily and constantly supplied with it.) If the salt is all eaten up, the sheep soon tell me of it. And I think this is particularly needed when they are on grass. If I observe any of the sheep scouring, I add a little wood ashes to the salt, mixing them carefully, and I never fail to cure the sheep at once.

I have a cow also that calls for her salt as surely as she calls for her feed. If I am in haste to put flesh on a horse, I give him an extra quantity of salt, and can always perceive the increase of appetite, and consequent increase of flesh.

But I have already occupied too much space. I wish other farmers would give us the benefit of their experience in this matter.

Bevis, Ham. Co., Ohio, 1865. J. P. WATERHOUSE.

CHANGE OF SEED.—T. E. Willoughby, of Ogle county, Ill., writes the *Genesee Farmer* that he obtained some seed corn last year from Joseph Wright, of Waterloo, N. Y., and "had a large crop." Mr. Wright sends to the West for his seed corn, (Ohio Dent,) and we suppose the object in a Western farmer getting his seed from him, is that after it has been grown in this more northern latitude it will be earlier. Corn ripens earlier as we go North, and when taken South has a *tendency* for a year or two to ripen at the same time—and is consequently earlier. With wheat the case is reversed. Wheat ripens earlier as we go South, and for this reason it is desirable to get seed wheat from a more Southern latitude.

FEEDING COWS IN WINTER.

MR. BURN, in his new volume of "Outlines of Modern Farming," says on the winter feeding of cows:

"Dr. Voelcker, as corroborative of the fact, which seems obvious enough, but, nevertheless, is really very much overlooked by dairymen, that the food has an influence on the quality of the milk, mentions that the cows of the Agricultural College, when taken in from the scanty supply of the grass in the October fields, and placed in stalls, and fed with hay, roots, and meal, the quality of the milk increased at once, and gave 4½ per cent. of butter in place of 3½ per cent. when not so treated; the evening's milk, after the cows were out all day at grass, yielded only 3 per cent. of butter. In the winter months the cows were wholly kept in doors, when the milk was at once more abundant and richer in quality. In February the daily food was as follows:

At 6½ A. M. 12 lbs. of hay.
9 " 15 lbs. of mangels, cut fine, and mixed with 3½ lbs. of straw chaff and 1 lb. of hay chaff.
11½ " 4 lbs. of rape cake.
3½ P. M. 15 lbs. of mangels, cut fine, and mixed with 3½ lbs. of straw chaff and 1 lb. of hay chaff.
5 " 12 lbs. of hay.

"We now give brief details of other modes of feeding, the first being taken from the *Agricultural Gazette*:

"'Half a cwt. of turnips, 16 lbs. of hay, and 24 lbs. of wheat and oat straw daily are very large rations for a small cow—say 6 score a quarter. Cut the straw into chaff, mixing a very small quantity of hay, and pulp the roots, mixing them all together. You will thus save much hay.'

"The following is the mode detailed in the Prize Essay on 'Dairy Management,' published by the Yorkshire Agricultural Society, and of which the Rev. Mr. Pulline is the author:

"'It is a good plan to take up the cows as soon as the nights become cold—say the middle of October—as the white frosts which occur about that time cause them to run off their milk. They are turned out during the day till the middle of November, if the weather keeps fine. From that period till May day they are kept entirely in the house, except being turned out a few minutes every afternoon to water. They are milked at half-past 5 o'clock, morning and evening. As soon as the man who feeds them comes in the morning, the dung is all removed, and each cow has a feed of 28 lbs. of roots:

At 7 A. M. 7 lbs. of chopped hay.
9 " A pail of water, with ½ lb. of bean meal stirred into it.
10 " 2 lbs. of linseed cake.
1 P. M. 7 lbs. of chopped hay.
2 " Turned out to water, and then 2 lbs. of linseed cake.
5 " 28 lbs. of roots.
8 " 7 lbs. of chopped hay.

"'On this system of management five cows produced in seven weeks, from the 25th of March to the 10th of May, 191 rolls of butter, 24 ozs. to the roll—equal to about 254 lbs., 16 ozs. to the lb. To

this must be added, 154 quarts of new milk, and 42 quarts of cream, consumed in the house. The milk was not regularly measured, but averaged about 60 quarts per day.'"

NOTES FROM LEVI BARTLETT.

TALL OATS.

EDS. GENESEE FARMER: In the January number of the *Genesee Farmer* it is stated that "California beats the world in agricultural products, and that the editor of the Carson City *Post* had sent to him a bundle of oat straw six feet high."

I now have on hand a bundle of oats of my own raising, the straw of which averages 6½ feet. To prove that there is no mistake in this, I forward a sample, which on measurement you will find to be 6 feet 9 inches high.

Several years ago, I received a small package of oats from the Patent Office, marked "Potato Oats, from England." In course of two or three years, I grew enough from that small beginning to seed half an acre, which yielded 40 bushels by measure, or 50 bushels by weight, the oats weighing 38 lbs. per bushel. The next season my oat crop was nearly ruined by multitudes of the aphis, or plant lice, the oats only weighing about 24 lbs. per bushel. I saved a barrel of the best of them for seed, but by a mistake of the person who had charge of my horse, they were fed out. All I now have to start upon again, is what I may obtain from the sample sheaf now on hand. The straw was so tall and heavy that it could not be cut with a grain cradle, and the sickle was used in harvesting, and the stubble was left from 2½ to 3 feet high, which was afterwards mown, and saved for littering my hovels, &c. As we had no rains or high winds for several weeks preceding their ripening, there were scarcely any lodged oats on the half acre.

Allen, in his *American Farm Book*, says: "The potato oat has large, plump, rather thick-skinned, white grains, double and treble, with long straw. It is now almost the only kind raised in the north of England and south of Scotland, and brings a higher price in London than any other variety."

I have for the past two years grown the Poland oat. Mr. Allen says: "The Poland oat, known by its thick, white husk, awnless chaff, solitary grains, short, white kernels, and *short*, stiff straw. It requires a warm, dry soil, but is very prolific."

The past dry summer was hard on the oat crop in this section of the country. But my Poland oats weigh 35 lbs. per bushel. I send with this a sample of the oat in the straw, which you will see is not so very *short*.

TURNIP SEED.

You say you "intend to set out some turnips for seed next spring." A very good intention. I have time and again raised turnip seed for my own use of several varieties. And the seed has produced as good crops as any imported seed. By growing my own, I find no difficulty in "getting pure seed from well-selected bulbs." As a general rule, "like produces like." I selected some fine turnips last fall for planting out for seed, viz., Laing, Purple top, Ashcroft's, Swedish, and Skirving's. But shall plant them at such distances that I think they will not mix or hybridize.

WINTERING STOCK.

At page 18 of your paper, you have an article on wintering stock in England, by Mr. Curtler. I am not sure that I rightly understand him. He says "he can afford to give his cows a peck of maize (Indian corn) per day, and by this means he could keep them at the rate of 4s. 6d. per head per week." Now, does he mean to have us understand, that he could give each of his cows a peck of corn per day, and keep them at the rate of 4s. 6d. per week? Is not seven pecks of corn and the necessary amount of straw or hay to feed a cow for seven days worth but one dollar in England? Corn here is worth $2.25 per bushel, consequently seven pecks of corn are worth, here, $3.93¾. But this is paper money price. I doubt whether corn can be bought for less than one dollar per bushel, in gold, in England, and if so, then the seven pecks would cost $1.75. A good sized cow will consume at least 36 lbs. of hay per day. Hay here is worth $25 per ton—consequently it would cost 45 cents per day, or $3.15 per week, to keep a cow in this part of the Granite State. Perhaps you can explain Mr. Curtler's statements to the satisfaction of your readers.

Warner, N. H., January, 1865. LEVI BARTLETT.

FARMERS' PAINT.—Farmers will find the following profitable for house or fence paint: Skim milk, two quarts; fresh slaked lime, eight ounces; linseed oil, six ounces; white Burgundy pitch, two ounces; Spanish white, three pounds. The lime is to be slaked in water, exposed to the air, and then mixed with about one-fourth of the milk; the oil, in which the pitch is dissolved, to be added, a little at a time, then the rest of the milk, and afterwards the Spanish white. This is sufficient for twenty-seven yards, two coats. This is for a white paint. If desirable, any other color may be produced; thus, if a cream color is desired, in place of part of the Spanish white, use the ochre alone.—*Working Farmer.*

WATER-PROOF GLUE.—Render glue perfectly soft, but not liquid, in cold water. Then dissolve it by a gentle heat in *linseed oil*. It dries almost immediately, and water will not affect it.—J. L. HERSEY.

LETTER FROM MISSOURI.

EDS. GENESEE FARMER: I have so many things of interest to say to the farmers of the Eastern States, that I fear I can not put them all in one letter. Out here, beyond the Mississippi, we like the "*Genesee Farmer*" so well, that we wish a good many more New York farmers would come and help us improve and enjoy this great country. Hannibal is situated on the Mississippi river—the eastern terminus of the Hannibal and St. Joseph R. R., whose western terminus is St. Joseph, on the Missouri—a stretch of distance of two hundred miles on a straight line.

And, for all the purposes of agriculture, there can hardly be found any more beautiful country than that portion of Missouri lying north and east of the Missouri river and west of the Mississippi, between St. Joseph and Hannibal. Fifty bushels of what is called sod corn are often raised to the acre. In 1860, Missouri produced almost 73,000,000 bushels of corn, a larger amount than any other State in the Union, excepting Illinois.

Now, that Price has been ignominiously driven out of the State, and every rebel hope, in regard to Missouri, utterly crushed and destroyed, the people are looking forward to the renewal of emigration to this fair and beautiful State. The loyalists, tried by fire, want the desolated farms of rebels, who have gone into the Southern army or are killed, cultivated again.

Slavery, whatever its merits or demerits, is practically a thing of the past in Missouri. That institution, which deterred so many Northern farmers from settling in Missouri, is now powerless, and will soon be utterly extinct. We have nothing to fear or to hope from it.

The climate of Missouri is very fine. We escape the severe and long winters of the North. Neither do we have the enervating influence of a more Southern latitude. Here we can produce even cotton, but sorghum, tobacco, flax and grain, grapes and orchard fruits, are produced to perfection. In 1860, more than four million bushels of wheat were raised. Nearly three hundred thousand bushels of rye, nearly four million bushels of oats, and more than twenty-five million pounds of tobacco. Missouri had less than three million acres of improved land in 1850. In 1860, more than six millions of improved acres. She has more than thirteen millions of acres of unimproved lands, while Illinois has about eight millions of unimproved lands. But, Missouri is a great State, more than half as large as England, Scotland, Ireland and Wales put together, and Massachusetts added.

Peace and order are restored through the State. It has about twelve hundred thousand inhabitants. There are many thriving towns, of from one to three thousand inhabitants, lying on the Hannibal and St. Joseph R. R. North Missouri, by reason of its smooth prairies, all ready for the plow, is better fitted for agriculture than the central or southern parts of the State, which are broken or hilly. It is far better wooded than Illinois, and it has accessible markets, by its rivers and railroad lines. The lands of the Hannibal and St. Joseph R. R. are exceedingly cheap and desirable. The same land in New York would command sixty to one hundred dollars an acre, forty dollars in Ohio, and from twenty-five to fifty in Illinois. But it can be purchased here from five to fifteen dollars an acre. Location near towns enhancing the value, while the quality remains the same.

It is a great mistake for farmers to come out here and buy immense quantities of land, unless they propose to farm upon a very large scale. A fertile and rich soil, of forty acres, which may be purchased for two or three hundred dollars, on a long credit, if desirable, might be taken up by men of small means, and as much more laid out in improvements on the land; and the whole could be paid for in two years, with the high price that agricultural products have obtained the last few years. At the present time, a farmer who raises twenty hogs, (and one hundred is nearer an average,) weighing 250 pounds each, could sell them at his door alive, for ten cents a pound, which would pay him 500 dollars.

The ease with which crops are raised, and money made, fosters a spirit of waste, and indolence, which astonishes Eastern men. Let New York farmers come out here with their thrift and habits of industry, and settle on these prairies, and they could not escape making a competence, if not a fortune. And, the opening Spring will be just the time to establish emigration in Missouri. Let companies organize and come out together, and help one another. Let each person subscribe, and pay in advance, for the *Genesee Farmer*, before he comes.

There never probably was a more favorable opportunity for investment in choice lands, at low prices, than there is now in North Missouri. These lands will double in value, in less than three years. As, in the revolution, a great many of the soldiers, instead of settling down in their former homes, made new ones in the wilderness, and the West, so now, on the return of peace, thousands of soldiers will make their homes in Missouri, rather than live in the East, or go beyond the Missouri river. It is a fact not generally known in the Eastern States, that the great agricultural limit, beyond which little can be done, except in stock raising, lies near the Missouri river. Large portions of Nebraska will never

be settled by the farming interest; and the same is true of much of Kansas.

The land east of the Missouri river is infinitely better than that west. The great territory lying between the Rocky Mountains, and approaching the Missouri river, loses its fertility as you go west of the river, and shades off into the great sand plains. Practically, the great valley of the Mississippi is limited to the eastern bank of the Missouri river, beyond which the land grows poor, and the climate is liable to frequent drouths. These facts are known to residents in the far West, and are known to the government, but are not generally known in the Eastern States. For these reasons, Kansas and Nebraska, and territory lying west of those sections, will not be largely populated. But the tide of emigration will flow on across the Mississippi, and fill up North Missouri. I have traveled through many States and am familiar with the East, and I know not where cheaper and better land can be obtained than in this wonderfully rich State of Missouri. Missouri needs Eastern emigration; and Eastern emigration can be benefited by settling here. We welcome them to our towns and to our lands. We need them, and we have that which they need.

Hannibal, Missouri, Dec. 16, 1864. M. W. W.

NOTES BY S. W.

The Ameliorating Effects of Clay on a Sandy Soil.—The hygrometrical or absorptive power of a loose, sandy soil, treated with a light coating of clay, is illustrated by an experiment made by Mr. Comstock, near West Canada Creek, Herkimer Co., in this State. He says that during a trying drought, a poor, sandy soil that he had treated with a coating of blue clay the year before, now stood the drought well, yielding a good crop of red clover, while the other part of the field, unclayed, remained parched and dry, presented a scanty vegetation, hardly worth harvesting.

Again, the soil thus clayed was so permanently benefited, that it required less than half the stall manure to enable it to produce good crops that was required by the sandy surface not thus treated with clay; thus proving that the constant requirement of a sandy soil for heavy manuring, is entirely due to its lack of the alluminous principle which enables it to hold the escaping gasses of decomposing manures for the benefit of the growing crop.

There are thousands of acres of scrub oak and pine plains on Long Island, within two hours by rail of the city of New York, all arable land, needing no underdrains, a sandy loam surface and coarser subsoil; but making a compact and perfect race-course roadway. To grow the best of red clover, these plains have only to be cleared and burned over, but for continuous cropping, the soil needs the alluminous principle in a coating of clay, which, when worked in, gives adhesive absorptiveness to the soil, without which there can be no lasting fertility short of continued heavy manuring.

Sand alone will not Amend a Clay Soil.—The immediate effect of sand applied to clay is to make it into a more adhesive mortar, and anthracite coal ashes, unless in large proportion, will have the same indurating effect; but if coarse vegetable or stall manure, or a stiff clover sod is applied with the sand, and both are plowed in, in the fall, so that the frosts of winter can act on the furrows, then a thorough amelioration takes place, and you have the next season a friable soil of great fertility, capable, with subsequent good tillage, of standing both wet and drought. But to keep up this condition of the soil, it must be well underdrained, and an occasional rotation of a clover crop, with the sod and a little manure plowed in, must not be omitted. The action of frost on clay is allied to that of burning the clay; the alluminous base of clay seems to lose its strong adhesiveness by burning, and the finely comminuted sand that is precipitated is identical, apparently, with the fine sand of the richest river bottoms, which it has been said can not be worn out by ordinary cropping. At any rate, such a soil is more capable of holding water by absorption, and decomposed organic matter by chemical attraction, than any other equally absorptive soil. According to Thayer, a rich alluvial soil contains 74 parts clay, 10 parts sand, 4 parts lime, and 11 parts organic matter; but it must be remembered that the alluvial clay contains much more finely comminuted sand than its metalic base allumina.

The bi-monthly report of the National Agricultural Department for September and October, does great credit to the Commissioner, Isaac Newton, as a man of both industry and practical ability. The mass of information he obtains *gratis*, on agricultural statistics at home and abroad, and the correspondence of our best farmers on wheat growing improvements, are of great interest to all would-be progressive farmers, as well as to the whole country generally.

A masterly farmer of Knox Co., Ohio, writes to the Commissioner in relation to wheat growing the last season, thus: "The difference in favor of drilling is not so apparent as usual. Protection from the piercing wind on the first of January last, had a more favorable influence on the wheat crop than anything else. Take our country over, and we will scarcely have more than our seed. When I found that my wheat was killed, as the next best thing, I got spring wheat, and at the proper time put it in with a drill running crosswise of the last fall's drilling, thus leaving the winter wheat to grow with the

spring wheat. I have just finished cutting a No. 1 crop of wheat; I can not yet tell how much per acre, but the crop is a good one in quantity and quality. If the same course had been generally pursued, millions might have been saved to the country." There appears to be a great balance of testimony in favor of drilling in, instead of sowing wheat broadcast, as it gets a better stand in the fall, and is thus enabled to stand the winter better.

Waterloo, January, 1865.

CONVENTION OF N. Y. CHEESE MANUFACTURERS.

The second Annual Meeting of the N. Y. Cheese Manufacturers' Association was held at Utica on Wednesday and Thursday, Jan. 11 and 12. A full report of the Meeting is given in the Utica *Herald*, from which we extract the most important points.

The President of the Association, George Williams, of Whitestown, in his opening address remarked: "It seems reasonably certain that much has been saved to the country at large, by the dissemination of suggestions made at the meeting of last winter, touching the loss of valuable parts of milk, from rough and indifferent management, in connection with a resultant laudable desire among manufacturers to excel in the quantity and quality of their product. The reports will show an increased production from a given quantity of milk this season over former ones, and a still greater improvement in the quality of the cheese. The latter result is apparently fast lifting American factory made cheese to a commanding position in all foreign markets. The exports of our product the past season largely exceeded those of former years; and the history of our commercial relations, with the evident determination to excel in manufacture, indicate an early conquest over the European producers. Indeed, exporters are now quite ready to admit that our deficiency lies not in quality, but in size and form, a matter easily corrected, certainly."

Mr. Mattoon, of Vienna, offered the following resolution:

Resolved. That the native cows are the best and most profitable for the dairy.

Mr. Mattoon said he had not had experience to decide positively, but his observation had led him to the conclusion that neither the Devon nor Durham cows were as good milkers as the natives.

Mr. Moore, of New Hartford, said that he had raised calves of all bloods—Devons, Durhams, Ayrshires, Alderneys and grades—for dairy purposes. They were raised together, and had the same feed and treatment. The Devons, he found, matured early, and would give more milk than the Natives for a few seasons, but after five or six years the Natives were much the better. He found the grades between Durhams and Natives and Devons and Natives to be an improvement on the full bloods. The Alderney was the best milker of all, and the Ayrshire was good. In answer to a question, Mr. Moore said that the Alderney required much more care than the Native, which rendered her unprofitable.

Mr. Chapman, of Oneida Lake, had milked full-blood Devons fifteen or sixteen years, and the grades between Devons and Natives; had also had experience with grade Ayrshire cows, crosses between Native cows and full-blood Ayrshire bulls. There had been a great deal lost by farmers putting large framed cattle on poor feed. The full-blood Durhams should not be put on poor pastures; the Devons are the cows for such feed. Where cows are slopped, the Devons were also probably the most profitable. Thought the full-blood Devon not equal to the grades or the Natives. He had a few choice Devons, but found he had to cull much more to get good cows from this breed than from the Natives. The same was true in a greater degree of the Durhams. Some of the full-blood Durhams had not enough milk to raise their calves. The cross from the Devon bull and Native cow was a good one. The peculiarity of the Devons was that they would give a good quantity of milk in the early part of the season, but later it would shrink very much. If put on a new field in August, the extra feed, instead of going into the bag, would go on the ribs. In *quality*—dairymen would understand him—the Devons excelled all other breeds. The grade from the Devon bull and Native cow was smaller than the full-blood, and the bull determined the character of the teats, and external form or contour, in nine cases out of ten. The grade Devon was about as good as any breed you can get on ordinary feed. Had not made up his mind decidedly, but thought that generally there was nothing better than the grade Devon for dairy purposes. The Ayrshire cross from Ayrshire bull and Native cow, was much smaller than either the Ayrshire or Native.

Leander Wetherell, editor of the Boston *Cultivator*, remarked:

"In considering what cows are best for dairy purposes, the cow should be suited to the farm where it is kept. No breed is suited to all localities, and hence there were various opinions, some preferring the Short Horn, some the Ayrshire, some the Devons, and others the Jerseys or other breeds. Grades from the common Native cow were the best breeds for milk and for oxen. In regard to breeds, he would say, that God makes the species and man the breeds. Cattle are of one species, but breeds are various. The imported Short Horn had been made by means of skill in breeding. There was a difference between the Short Horn and the Devon. An unskillful breeder might select 50 perfect Short Horns from the herd of Mr. Thorne and keep the

breed on a farm by themselves for 15 or 20 years, and by injudicious management the chances are, that at the end of that time they will be a very shabby lot of animals. But the Devon kept in the same way 20 years would turn out a perfect Devon. Here was the difference; the Devon was a fixed type, and so in the Hereford, but not so with the Short Horn.

"The dairy farmers of Hartwick, Barre, and some other places in Massachusetts, had introduced the Short Horn of good milking families, and have used him for raising dairy stock and breeding from best Native cows. Hence they obtained a first rate lot of cows. They have derived more benefit from this cross than from other breeds. They do not get so good results from the Ayrshire or other breeds as the Short Horns.

"There was no breed so profitable for the dairy as the Native cow. An illustration was given of a well known farmer in Massachusetts, who had tried the Hereford, the Ayrshire, and the Alderney, to test the matter and determine which was best, but there was no cow on the farm so profitable as the Native. On a farm in Essex county, where the Trustees of an Agricultural Society had introduced Ayrshires to be tried with Native cows, he (Wetherell) went up to find out which proved to be the best stock. The manager was absent, but in talking with the wife of the manager and the hands employed on the place, they told the whole truth in the matter, and they all affirmed that the common cow was more profitable than the Ayrshire. Another farmer had offered to put three or six Native cows against the like number of imported Ayrshires, and let both breeds fare alike, and the owner of the animals that produced the best results at the end of three years should have both lots. The owner of the Ayrshires did not dare to accept the offer, for farmer Sheldon, of Wilmington, with his Natives, would have taken the blooded stock.

"Mr. Wetherell said he was an advocate of the Short Horn breed of cattle, but they were no hobby with him. He had no interest in the matter. He had spoken freely and given his preferences, &c. The grade Short Horns made good working cattle, and they were of more profit because they could be easily converted into beef. At Middleton, Conn., no breed of oxen in the quarries were liked as well as the Short Horns. When work was done they were put in the stall to fatten.

"With regard to grade animals, Farmer Anderson bred from good Natives, introducing a thorough-bred bull. He had been able to take the first premium all through the Connecticut valley, and he maintains that grades are the most profitable to breed. His heifers at two years old brought him $150, and that was good enough.

"The Durhams were bred for symmetry and not for milk. The highest milking qualities and the highest symmetry cannot be combined in the same animal."

MR. X. A. WILLARD'S ADDRESS.

Mr. Willard, of Herkimer county, well known as a writer on dairy matters, delivered an interesting address, from which we make a few extracts:

"The Associated Dairies of New York now represent an immense capital. It is only a few years since we saw them first inaugurated on the soil of Oneida, attracting attention from their novelty, but looked upon with distrust by the old and experienced dairymen who had no confidence in their successful operation. No effort has been made to force this system upon the public. It has marched forward on its own merits, and now obtains a foothold in the best dairy districts of the world. It has not only spread over New York, but has been carried into the Western States, New England and the Canadas, and the 'goods' manufactured are becoming famous in the markets of Europe. If we look into the causes of this success, we shall find that it rests on no ephemeral foundation, but has a substantial basis that commends itself to the dairy public, that must soon supplant the old order of cheese dairying, and drive it from the land.

"I am not prepared to say that factories exhibit any more skill in manufacture than is found in some of the private dairies, nor is it pretended that any better quality or larger quantity of cheese can be made; but that it is quite equal to the best, more uniform, and brings a higher price, is beyond dispute. These are arguments of great power, which are constantly at work, pushing a factory here and there in the old dairy districts, and thus gradually undermining the family cheese making.

"The questions have been frequently asked, Is the factory system destined to stand the test of years? Is it to continue to prosper, or will it not soon break up, and dairymen return again to the old system of cheese making? In my opinion, No. The system is a progressive step; and all history teaches that when that is taken it is difficult to retrace the step. Doubtless some of you remember when the wool and the flax, grown on the farm, were spun and woven in the family. We shall never return to that again, because we cannot afford it. They can be more cheaply manufactured by associated capital, or where the untiring arm of the machine is substituted for that of the living muscle. The flesh and blood of our wives and daughters are of too much consequence to be worn out by this ceaseless toil, when the spindles and looms, driven by steam or water power, can relieve them of this burthen at a fraction of what it costs in home manufacture. Why, then, should a neighborhood of dairymen do

the work of cheese-making in families, employing many hands, when it can be performed equally well by a half-dozen persons in a well-constructed factory?

"But it is claimed there is one feature with regard to cheese associations that operates injuriously on the interests of old dairy districts. Cheese dairying is no longer a privileged business, narrowed down to a few places, where high skill in manufacture has built up an enviable reputation. It is opened up to many localities. What you have been acquiring by long years of patient toil, by science and experience, is at once opened to whole communities, where the art of manufacture is unknown. They come here and pick off your best cheese makers—they erect their factories and meet you in the market on an equality. So long as dairying was conducted on the old system, this could only be done slowly, and so gradually as not to influence the trade for years. Doubtless in this respect the factories act unfavorably on those who would prefer to see dairying confined within narrow limits; and the fears that the business may be overdone, are not altogether groundless. But the step has been taken, and it is too late now to look back. It remains for us to make a market sufficiently large to take all our 'goods.' In what manner this can be done is obvious.

"We can compete with the dairymen of the old world as to prices, and when we shall be able to outdo them in quality, a market for our 'goods' is secured for all coming time. The business of cheese dairying is now assuming large proportions, and will still increase rapidly under the stimulus of ready sales, high prices, and the facilities offered for manufacture under the factory system. How far this influx of the business is to influence prices, remains to be seen. Without a market in Europe, the supply, it is evident, will be so great as to glut the home-trade, and render cheese dairying unprofitable. It is true, nature seems to have hedged the dairy within certain limits. The immense plains of the West and South, as well as large portions of the Middle States, are not adapted to dairying. The lands are deficient in springs and streams of living water, the soil is of such a character that grasses soon run out, and pastures become brown and dried up, or afford scanty herbage long before midsummer. These lands are better adapted to wheat and corn, or the production of beef or mutton or wool, and hence will not naturally be employed for the dairy. But still there are large tracts of land suitable for milch cows, and should they be generally devoted to the dairy, we may find the annual supply of cheese so great as to sensibly affect prices. There is no question of more importance, none of more vital interest to the dairyman, than this matter of market—a market that is permanent, enduring, and remunerative.

"In 1860, before prices became inflated, the cost of producing milk in the best dairy districts of Herkimer, was a little above 7c. per gallon. This may seem an extravagant estimate by those who have never thought of the matter, but I will submit the items of each expenditure, and farmers can judge how far they are out of the way. First-class lands have been selected, or such that three acres on an average will produce sufficient food for the summer and winter keep of one cow. A good cow also is taken, or one capable of yielding 500 gallons of milk during the season, which will produce 500 pounds of cheese. With these data we commence:

Interest on land ($300) at 5 per cent.	$15.00
Average annual cost of plaster for three acres, hauling, sowing, etc.	2.00
Interest on cow ($40) at 7 per cent.	2.80
Grain fed in spring, say	1.00
Milking, at 1½c. per day	4.50
Cost of harvesting and storing 2¼ tons of hay	6.00
Annual average depreciation of stock	8.00
Annual taxes, State, county and local, say average proportion	1.50
Making	$35.80

for 500 gallons of milk, or 7 16-100 cents per gallon.

"In this estimate, nothing has been allowed for care of stock in winter, nothing for fencing or for keeping up the farm, nothing for loss of animals from accident or other causes, and nothing for various other items required in running a dairy farm. All these items, except interest on land, which is put at five per cent., are for cash paid out when labor and materials were cheap. Of course now the cost of producing milk must be much more.

"Those who have an idea that cheese can be made and sold for 7 cents per pound, presume on people's 'working for nothing and boarding themselves,' and then 'throwing in the trimmings.' The flavor of this kind of cheese dairying can not be very sweet or savory, to say the least.

"This question of cost in producing milk should be determined on every dairy farm—the estimates should be carefully made and compared with the sales, and it will then be seen whether the business is profitable, or being conducted at a loss. We are just entering upon an extraordinary phase, in the history of American taxation, and our necessary annual expenditures must, for years to come, be greatly above those of the past. They must be met manfully, and ways devised in producing for these extra calls on our earnings and profits. They cannot be met by poor herds, and a shiftless and improvident mode of farming. The average annual yield of the cows must be brought up to six hundred and more pounds of cheese per head. We must learn the means of keeping more stock on a less number of acres, and at the same time supplying the herds with a greater abundance of food and subjecting them to a less amount of labor in obtaining it."

FEEDING WHEY TO COWS.

This subject was discussed at considerable length. It seemed to be the general opinion that it was more profitable to give the whey to the cows than to pigs. One speaker said he got five pounds more milk per day from his cows by feeding whey. He adds to the whey when sour (for thirty cows) a bushel of bran. In this way he can keep one-third more cows on the same pasture. During the drouth last summer, it was observed that those farmers who fed whey got double the quantity of milk.

"We have been flattering ourselves the past year on receiving extraordinary prices for cheese, and yet England has bought it at less price than in 1860. The high rates of gold and bills of exchange have stimulated shipments, and it is a question with some, whether our largely increased exportations may not be partly due to this, rather than a healthy foreign demand. But how is it to be with us after the close of the war, or when everything drops down in price to a gold basis? Are we then to realize the old prices of 10c. to 12c. per pound? Will not the immense supply—unless it be of a superior quality—have a tendency to reduce prices? This is a question that should engage our serious attention.

"American cheese has been greatly improved within the last half-dozen years, but the average of our factory cheese is still below the English standard of first-class Cheddar. The celebrated Cheddar cheese of England sells in advance of ours. It has been sold in London markets at wholesale at from 84 to 112 shilling per hundred weight, or from 17 to 24c. per pound in gold, while choice American cheese commanded from 62 to 65 shillings, a little more than half price.

"Now there is no reason why our factories should not be able to meet all the conditions of the English market, and as to flavor and high priced cheese—they have greatly improved the character of American cheese, and by united and persistent effort, this point *can* and *must* be reached. I learn from dealers that the point has been nearly or quite reached by some of our factories the past season, and if the statement be correct, we can see our way more clearly in the future, for we can manufacture and sell our cheese in England for what it costs there in the mere production of milk. According to Morton's Cyclopedia of Agriculture, the cost of producing a gallon of milk in Gloucestershire is 6½ pence, or 12½ cents, while in Cheshire it is 13 cents. It will be seen then how large a margin is left them to compete with us in the manufacture of cheese."

SQUASH BUGS, &c.—Walter Butler writes the *Genesee Farmer* that he has tried many different articles to keep bugs from vines, but never found anything equal to sulphur put on with a dredging box after every shower.

LETTER FROM SANFORD HOWARD.

FRIEND HARRIS: I see you notice in the January number of the *Genesee Farmer* a remark of mine in regard to root-culture in Canada. Your comments on the paragraph you copy, and your opinion, expressed in another place, in regard to a proper drill for sowing turnips and other roots, deserve attention. I am sure that one reason why our farmers have not gone more into root-culture is the great amount of hand-labor required in sowing and cultivation; but unless they should make up their minds to engage pretty largely in the business, it would not be an object to purchase such machines and implements (or better ones) as are used in England.

I see you have an engraving of "England's Glory." I saw that horse several times, and though his owner was "bold to say" there never had been so good a one of the kind in England before, and *never would be his equal*, he did not strike my fancy as much as some other draft horses I saw—particularly some Clydesdales. We need a better style of farm-horse in this country; but I have not made up my mind as to the best way to obtain it. If we needed as large horses as the Clydesdales, I should be in favor of them. They are not generally as large as the largest class of English draft horses—weighing, say, from 1600 to 2000 pounds—and I have often heard English farmers express favorable opinions toward them, except that they were "rather small." Yet our farmers are not in favor of so large a horse. I have no doubt a cross of the Clydesdale with the common farm mares of this country would make a decided improvement for agricultural purposes; but if we were to adopt a distinct breed, I have never seen one that seemed more likely to answer our purposes than the French *Percharon*—some excellent specimens of which were imported by the Massachusetts Society for Promoting Agriculture last summer.

Yours truly, SANFORD HOWARD.

Lansing, Mich., January 12, 1865.

GOOD SHEEP.—David Humphrey, of Spring Creek, Cass county, Ind., writes us that he bought a pair of Spanish Merino sheep last fall that were discarded from the flocks of Geo. Campbell and Mr. Hammond. The buck sheared when one year old 13 lbs. of clean washed wool, and the ewe 11 lbs. Mr. H. is so well pleased with them that he wishes to buy some more, and he requests any readers of the *Genesee Farmer* who have Spanish Merino sheep that will shear from 13 to 20 lbs. of wool to write him at what price they will let him have some of them.

AN UNPATENTED BOOT-GREASER—The foot of a rabbit. Try it. A. N.

WESTERN NEW YORK FRUIT GROWERS' SOCIETY.

THIS Society convened in this city January 24th.

The following is a list of the officers and committees for the ensuing year:

President—P. Barry, Rochester,—re-elected.

Vice-Presidents—C. L. Hoag, Lockport; G. H. Wheeler, Hammondsport; J. J. Thomas, Union Springs.

Secretary—James Vick, Rochester,—re-elected.

Treasurer—W. P. Townsend, Lockport,—re-elected.

Executive Committee—H. E. Hooker, Rochester; T. C. Maxwell, Geneva; W. B. Smith, Syracuse; Jno. Fisher, Batavia; L. F. Allen, Black Rock.

Committee on Native Fruits—J. J. Thomas, Union Springs; Thos. Smith, Geneva; C. L. Hoag, Lockport; C. W. Seelye, Rochester; E. W. Herendeen, Macedon.

Committee on Foreign Fruits—Geo. Ellwanger, Rochester; T. C. Maxwell, Geneva; Joseph Frost, Rochester; W. P. Townsend, Lockport.

The Treasurer's report was read and accepted.

REPORT OF COMMITTEE TO EXAMINE FRUITS ON EXHIBITION.

The Committee to examine fruit on exhibition report that they find on the tables a splendid collection of 38 varieties of winter pears from Ellwanger & Barry, 15 of which were eating pears, the remainder cooking pears. Several of the eating sorts were well ripened and excellent.

R. J. Donnelly of Rochester, exhibited 10 varieties of apples.

R. Schuyler, of Seneca, exhibited very fine specimens of Baldwin and Greening apples.

P. P. Bradish, of Batavia, had 25 sorts of apples.

Dr. F. M. Perine, of Dansville, exhibited well preserved specimens of Isabella and Catawba grapes.

H. N. Langworthy, of Greece, fine specimens of Rebecca and Diana grapes.

Judge Larowe, of Hammondsport, had two plates of most excellent Catawba grapes.

W H. Adams, four plates of Isabella grapes, well kept.

Frost & Co., Rochester, two varieties of well grown grapes.

On behalf of the Committee.

E. W. HERENDEEN.

REPORT OF COMMITTEE ON FOREIGN FRUITS.

Among the many and not well known older varieties of foreign pears which your Committee have fruited for several years in succession, the following have proved acceptable acquisitions, and worthy our recommendation of more general cultivation, viz.:

Pater Noster—Tree a vigorous grower; fruit of large size, nearly as large as Van Mons Leon le Clerc, half melting, very good quality—December and January.

Emile de Heyst—Tree vigorous and productive; fruit medium to large; skin yellowish green when ripe; flesh melting, juicy and good—November.

Belle Williams—Tree a beautiful, erect, vigorous grower, and productive, the wood resembling the Bartlett; fruit very large, of fine, pyriform shape skin yellow, overspread in part with russet; flesh melting and good—February to March. The fruit being so large and heavy, it should be planted in sheltered situations, otherwise the wind will blow them off; does well on both pear and quince. As with most varieties, its quality should not be judged the first three or four years after the tree first comes into bearing—it improves with age—thinning out should not be overlooked.

Souvenir d' Esperin—Tree a vigorous grower fruit medium size; skin yellow, and russety; flesh melting, buttery and high flavored; a fine late autumn pear—November.

Abbe Edourds—Tree vigorous; fruit medium greenish yellow with a russety cheek, melting, sugary and good—last of November.

Beurre Millet—Tree of medium vigor and productive; fruit medium size; skin brownish yellow when ripe; very juicy and buttery, and almost as high flavored as a Seckel—December.

Beurre Sophia—Tree a vigorous grower; fruit medium size, long, like Canandaigua; skin lemon yellow, russet around the stalk; flesh melting, buttery, full of vinous and sugary juice—last of September and first of October.

Delices de Jodoigne—Although this variety was introduced in Belgium twenty years ago, it is very little known in this country. Tree of medium vigor; fruit medium to large; skin yellowish green speckled with russety dots; flesh half melting, sugary, and highly perfumed; quality best; October.

Jules Bivort—Tree a vigorous grower; a splendid large pear; skin greenish yellow, with patches o russet, and thickly covered with small green dots flesh fine grained, melting, sweet as honey, slightly musky; first rate in all respects—middle of November.

Liberale—Tree of medium vigor; fruit about as large as Dix; skin yellowish green, sprinkled with russety dots; flesh melting, sweet, rich and aromatic—October.

Serrurier—Tree a vigorous grower; fruit medium size; skin yellowish, with a red, mottled cheek; flesh fine grained, sprightly, melting, vinous, first rate—October.

Capucin—Fruit medium size; skin greenish yellow, covered on the sunny side with a beautiful marbled red, like the Andrews; flesh yellowish white, melting, vinous, best—October.

St. Dorothee—Fruit large: skin green, changing slightly as it ripens—resembles Marie Louise; very sweet, melting and perfumed—October.

GEO. ELLWANGER, Chairman.

A PIONEER NURSERYMAN GONE.

The following resolution in reference to the late Electus Boardman was offered and accepted:

Resolved, That this Society hereby bears in remembrance the decease of Electus Boardman, which occurred in this city on the 19th inst.

He was emphatically a pioneer in the nursery business in Western New York, commencing more than forty years ago in the town of Brighton, and continued in it until recently. The interests of fruit growing in Western New York, as well as the adjoining States and Canada, is greatly indebted for its early advancement to his great energy and perseverance. Although he seldom participated in the meetings of this Society, he felt a deep interest in the progress of horticulture.

The following Questions were offered for discussion:

1st—The results of the most recent experience with the new varieties of the grape?

2d—The best varieties of hardy grapes to furnish a succession for family use; and how long may grapes be had in perfection?

3d—What peculiarities of soil is adapted to the different varieties of the grape?

4th—The best mode of keeping the grape?

5th—The most recent experience with the new varieties of the pear?

6th—The best varieties of pears for general cultivation?

7th—Does our past experience justify the extensive planting of the pear in Western New York?

8th—What is the cause or causes of the failure of the peach crop in Western New York? And what is the best course to remedy the evil?

9th—Which is the most profitable of the Small Fruits to cultivate for market?

10th—What is the best method of growing and ripening fruits under glass?

Referring to the first question, Judge Larowe said that he had fruited Delaware, Diana, Concord, and Hartford Prolific. His experience with Delaware was rather limited, having grown but three crops of them—the results, however, were very satisfactory. Diana had not done so well with him, having proved a shy bearer, but thought it one of the best of grapes. Delaware was not a good keeper, but Diana will keep as well as winter apples. Concord he considered a poor grape. Hartford Prolific he thought valuable for its earliness.

Mr. Fisher, of Batavia, desired to hear something of Iona and Israella.

The President read an extract from a letter he had recently received from Mr. Chas. Downing, in which he stated that he held a high opinion of this grape, and that it promised to be one of the best.

Mr. Jackson, of Dansville, said that he had lately been to see Mr. Downing, and conversed with him on the subject of grapes. He (Mr. D.) said that the best native grape of which he had knowledge was the Delaware; but the Iona, if it continued to be as good for a year or two more as it had already proved, would, in his judgment, be the best.

Judge Larowe thought Isabella and Catawba, where they would do well in Western New York, to be the most profitable varieties.

The President said that the Concord is not equal to the Isabella, Catawba, Delaware or Rebecca, but in some localities it is valuable for its earliness, and for people not too particular, pretty good.

Mr. Olmsted had some experience with Delaware, had several acres of them, but they had not yet borne much; he was offered 40 cts. per lb. for them last fall. He thought Rebecca a good grape; had fruited Rogers' No. 15, 9 and 4, but none of them extra; Allens' Hybrid a good grape.

President—Some of Rogers' varieties promise to be worth something, but none of them are equal to Concord. Allen's Hybrid had not done well with them, as it had mildewed. He had just received a letter from a gentleman on the Hudson, well informed in reference to grape culture, who said that No. 1 was the best grape he had.

C. L. Hoag had fruited 1, 2, 4, 15, 19, 23, 33, 34 and 39 for three years. This year all ripened well but 34. Was much pleased with No. 1; it is of the color of Delaware; bunches of about ½ lb. weight disposed to be somewhat open. No. 39 was the best this season.

Mr. Crane, of Lockport, thought Delaware, for general cultivation in Western New York, was the best variety.

Mr. Moody—Never saw the place where the Delaware would not ripen, but where Diana will ripen thinks it preferable; but generally for Western New York, Delaware is undoubtedly the best. Thought Concord valuable for the West.

Hoag—Do not consider Concord valuable for Western New York. Have never seen Delaware fail to ripen except when it had overborne. Hartford Prolific would bear a good deal of poor treatment.

Dr. Sylvester—Disposed to think well of Creveling.

President—Pleased with Creveling.

Hoag—Fruited it three years; quality very good.

Olmsted—Had fruited Lydia two years, and thought it would be one of the best white grapes.

The second question was disposed of by balloting; the largest number of votes cast was 30, for the Delaware. The following table shows the number of votes for each variety that was recommended:

Delaware	30	Diana	26
Isabella	25	Hartford Prolific	23
Rebecca	21	Concord	14
Creveling	12	Catawba	9
Perkins	2	Iona	2
Allen's Hybrid	2	To Kalon	2
Northern Muscatine	2	Israella	1
Adirondac	1	Lydia	1

Isabella received three, Catawba three, and Diana two additional votes for cultivation in situations where they would ripen.

Question Three.—Judge Larowe said the richest grapes were grown on the lighter soils—the most pulpy on heavy soils.

Mr. Thomas remarked that Mr. Underhill had said to him that grapes must not have a very fertile soil, but should be cultivated every week through the season.

Mr. Ellwanger said Isabella and Catawba required a heavy soil, otherwise the bunches would be loose. Delaware, Rebecca, Concord and Diana will do well on a lighter soil—say a rich, sandy loam.

Mr. Spence had seen the best vineyard on a light soil with a coarse gravel subsoil, where wheat would not grow one foot high. Ten tons of Isabellas had been grown in this vineyard of 1¼ acres.

Mr. Moody's observation had been that a heavy but dry soil is generally best suited to grapes.

Fourth Question—Keeping of Grapes.—Dr. Perrine was asked how he had preserved until the present time the fine specimens he had on exhibition. He stated that he took boxes that would hold from 20 to 25 lbs. into the vineyard on a bright day, and there filled them and closed up the boxes by covers, and carried them away to a cool cellar, where they have remained. He was careful to reject any bunches that were not thoroughly ripened, and not to handle them much. Grapes are as easily bruised by handling as any other fruit, although it may not be perceived, and the bruised spots quickly commence decaying.

Judge Larowe had kept grapes well by packing them in two-gallon earthen jars, with a block at the bottom of the jar to keep the grapes up from the moisture that always accumulated at the bottom more or less. As soon as the jars are filled they are covered and sealed with wax, and set away in a cool place. Another way he practiced was to pack the grapes in slatted boxes, with alternate layers of rye straw, and then place them where the temperature would be cool and even; in this way he had kept them until April.

Mr. Ellwanger had not heretofore succeeded in keeping grapes in dry rooms or in the cellar. Last vintage he picked grapes and placed them immediately in boxes holding from 12 to 24 lbs., which were then taken to a barn and kept until frost, when the boxes were packed in a large box lined on every side with dry leaves a foot in thickness; they are to-day apparently as fresh as when picked, without any mould. The boxes were kept open in the barn until there was danger of their freezing. In this way he kept Isabella, Catawba and To Kalon. Rebecca, Delaware and Diana were wrapped in thin papers, but otherwise treated the same.

Mr. Spence had heard that some kinds of fruit kept best when not fully ripe. He had heard this of Catawba grape, and was not sure but that this grape kept best by not being fully ripe.

H. N. Langworthy remarked that most kinds of fruit would keep longer and sounder when not fully ripe. He exhibited some Rebeccas which he had picked when not fully ripe. They were sounder than those picked later. The flavor of those which ripened fully was better. To keep grapes long he would not let them fully ripen, but they would not have so good a flavor as those taken fully ripe.

Mr. J. J. Thomas, of Union Springs, said that 30 years ago he had known grapes to be packed in jars of dry maple saw-dust. He did not know that the saw-dust was necessary. There are three points to be attended to in keeping grapes well:—1st. To get them. 2d. To have enough of them, or they will somehow mysteriously disappear before mid-winter. 3d. The moisture of the room where they are kept has much to do with their preservation, and if we can control this condition, it would be one important point gained. By experiments which I have made this winter, I find a great difference of moisture in rooms of the same temperature.

Dr. Sylvester, of Lyons, had kept grapes this winter, putting them in paper boxes on shelves, in a room with a chimney in it which dried the air. The grapes were now in fine condition, but they were somewhat shriveled by the heat. The flavor was good. He had kept grapes heretofore in cool rooms, and had them in good condition. Grapes should be ripe to be kept well, and in good flavor to retain their aroma.

Judge Larowe tasted the grapes of Mr. Langworthy, picked when not ripe, and he thought they were not fit to be eaten, while those which he had left until fully ripe were now delicious. The grape is a fruit that will not ripen after picking. The cheapest way to keep grapes was by packing in straw, after being properly cured on racks.

Mr. Olmstead, of Pavillion, had a simple method for keeping grapes. He had drawers holding 25 pounds each; took them to the vines and filled them with grapes. He then took them in-doors, and in three weeks sorted them over and piled them in a chamber, one drawer over another to exclude the air, and kept them very well, though they were not very plump. He thought grapes would bear a lower temperature than generally supposed. The moisture in the air was the thing to be avoided. He could not keep Delawares longer than January, but thought there would be a way found yet to keep those grapes longer.

Question Fifth—Mr. Ellwanger made a report as Chairman of the Committee on Foreign Fruits, which we have given above. He also gave his opinion as follows in reference to

Jones' Seedling—A fine small russet winter pear, good bearer, healthy tree, and excellent fruit. Almost or quite as good as Winter Nelis, and handsomer. Should be more cultivated.

Thomas and Barry concurred.

Church Pear—Dr. Sylvester inquired if this was new. They had cultivated a pear in Lyons for many years called Dick Robinson. Declared by Downing identical.

Mr. Barry said the pear was grown here under the name of Virgalouse more than thirty years ago. It was a large tree then—obtained from Prince's nursery.

Beurre Gris d' hiver noveau—Ellwanger said he had ripened it beautifully this year, and it is a splendid pear. Had a large crop, and sent some to New York to a commission house to see what they would fetch. Sold for $20 per bushel.

Mr. Hooker inquired of Society about Edwards pear.

Mr. Barry—It originated in the town of Brighton, and has been confined there. An excellent pear, peculiar walnut flavor ripens up well, in September. All things considered, no pear in its season superior. Fine grower on pear or quince—good bearer.

Thomas—Not so handsome as could desire, but equal or superior to Belle Lucrative in its best estate.

Question Sixth—This question, like the second, was subjected to a test of balloting, with the following result:

SUMMER VARIETIES.

Beurre Giffert	11	Bloodgood	2
Tyson	10	Brandywine	2
Doyenne d' Ete	9	Dearborn's Seedling	1
Rostiezer	9	Genesee	1
Osband's Summer	8		

AUTUMN VARIETIES.

Bartlett	16	Flemish Beauty	8
Sheldon	16	Beurre Bosc	4
Duchesse d' Angouleme	14	Howel	3
Louise Bonne de Jersey	13	Washington	3
Seckel	13	Buffum	2
Beurre d' Anjou	9	Onondaga	2
Beurre Diel	8	Des Nonnes	2

WINTER VARIETIES.

Lawrence	15	Columbia	2
Winter Nelis	11	Belle Williams	1
Easter Beurre	8	Beurre d' Aremberg	1
Vicar of Winkfield	5	Bergamot d'hiver	1
Glout Morceau	3	Duc de Bordeaux	1
Beurre Gris d'hiver Noveau	2	Beurre Bachelier	1
		Doyenne d' Alencon	1
Josephine de Malines	2	Jaminette	1

Remarks were then made by members in reference to some of the varieties in the list.

Doyenne d' Ete and *Beurre Giffart* were highly spoken of by many, and no objections to them were offered.

Brandywine.—Barry—This is a valuable variety, fine and showy.

Salter—Have several fine trees of it, but they do not bear well.

Hoag—It is not productive.

Tyson.—Fish—It is one of our best early pears.

Hooker—One of the best in all respects.

Hoag—It is very exempt from blight.

Bloodgood.—Hooker—Rather poor; sweet and indifferent.

Fish—It has proved better with me this year than ever before.

Hoag—I coincide with Mr. Hooker.

Langworthy—I think it should be classed with old, exploded varieties.

Barry—I find it still a valuable summer pear.

Rostiezer.—Lay—An excellent pear.

Maxwell—It is a fine pear and good bearer, but subject to blight.

Hoag—It is excellent, but quite liable to blight.

Washington.—Thomas—It is a sweet fruit, a good grower, even on poor ground, and bears abundantly; a valuable pear.

Fish—An excellent bearer and fine fruit.

Buffum.—Thomas—Thought highly of this pear for profit; although quality not first rate, yet its hardiness and thriftiness and abundant bearing and comparative exemption from blight and other diseases made it a valuable sort.

Beurre d'Anjou.—Dr. Sylvester—Think highly of it.

These remarks were approved by several members who were best acquainted with it.

Moody—Fine in Lockport, and we think quite exempt from blight.

Beurre Diel.—I would include this variety in a list for general cultivation, as it comes at a time when there are not many good pears; it is very fine moderately productive on young trees and on quince stock, but on standard trees it is apt to overbear.

Olmsted—It is one of the best late autumn pears, and keeps well.

Sharp—I have quite a number of them; it is a strong grower, handsome tree, and abundant bearer; it spots considerably, and on that account would not plant it much.

Barry—The late autumn pears I think are very valuable, as at that time there is not much competition of fruits in the market, and they bring a high price.

Duchesse d' Angouleme.—All concurred in an expression of the good qualities and valuableness of this variety.

Louise Bonne de Jersey.—Fish—I have wondered why this sort was so popular; it is too sour.

Hooker—I have found Louise Bonne de Jersey to stand the blight and other calamities better than any other sort, and have more trees and more fruit of it than of any other kind; I enjoy it highly, better than a sweeter pear.

Thomas—It has so many good qualities that we shall not get rid of Louise Bonne de Jersey very soon. Thought very highly of it.

Messrs. Sharp, Ellwanger and Hooker concurred in this opinion.

Hooker—It bore heavily with me this year, and brought $4 per bushel on the trees.

Barry—My opinion of it may be best understood when I say that I have just planted in my own garden several hundred trees of it.

Hooker—Although the Seckel, in comparison with the Louise Bonne de Jersey, would be considered the highest flavored, yet I find that where people have the privilege of using both, they consume four times as many of Louise Bonne de Jersey as of the Seckel.

Salter—The only fault I know of it is its overbearing.

Moody—I think this overbearing one of the finest qualities, for then we can thin out the fruit and distribute it evenly over the tree.

Flemish Beauty.—Hooker—It is beginning to crack and have black spots.

Lay—It cracks badly.

Fish—The last two years it has cracked with me.

Smith, of Geneva—It shows some signs of cracking.

Hoag—It cracks some and blights badly.

Gillett—In Yates Co., on heavy clay soil, it has never cracked. I have fruited it five or six years.

Barry—Cracking is owing to a fungus, the same as on the Virgalieu, and there is danger that it will follow it up, and I would not therefore recommend it to be planted largely here.

Seckel.—Olmsted—Have found the Seckel to crack.

Hooker—Have seen several trees this season entirely worthless from this cause.

Beurre Bosc.—Moore—I found it a pear of the very highest flavor.

Lay and Olmsted concurred.

Thomas—It deserves all the commendation we have given it, but it is too tender.

Question Seventh.—Remarks upon this question were made by quite a number of members, in which the opinion prevailed that by the selection of proper varieties and cultivating them upon suitable soil, pear culture would prove remunerative. Several instances of success and of failure were given, which our space will not allow us to insert.

Question Eighth.—Thomas—First cause, want of trees. Second, bad treatment. Third, severe winter. Against the last there is no remedy, except perhaps the selection of the most favorable locations, and perhaps some kind of protection. Another cause is curl of the leaf, induced no doubt, in part at least, by poor cultivation.

Moody—Thought the destruction of the peach crop in winter, which is now much more common than formerly, was caused by the cutting away of the forests, thus exposing them to severe winds.

Hooker—Thought something might be done to avoid the curl by the selection of the harder varieties.

Question Ninth.—All agreed that the Strawberry was the most profitable of all the small fruits.

Question Tenth.—Mr. Fisher had devoted some time to growing grapes, peaches and figs under glass, and had met with some success. Thought that those who had time and means could spend a portion of the leisure time of winter in growing peaches and strawberries. The small dwarf trees in pots one foot in diameter, yield from 12 to 18 peaches—beautifully colored, and fine. Have succeeded well with cold grape-house.

Thomas—I visited some peach houses last season; was at Isaac Pullen's, in New Jersey, the first day of June; the first peaches were gone; he had 100 trees, bearing each from three to four dozen, which sold for $6 per dozen, in New York, readily, being $18 per tree, and $1,800 for the whole house. He commences to heat about the first of January, and gets the first crop the latter part of May, and the last crop the latter part of June.

BENZINE TO DESTROY INSECTS.—The *Gardeners' Chronicle* says: "As our houses are always, more or less, infested with vermin, it is satisfactory to know that benzine, an article become sufficiently well known as a detergent, is no less efficacious as an agent in insect-icide. One or two drops are sufficient to asphyxiate the most redoubtable insect pest, be it beetle, cockchafer, spider, slug, caterpillar, or other creeping thing. Even rats and mice will speedily decamp from any place sprinkled with a few drops of the patent benzine. A singular fact connected with this application of benzine, is that the bodies of insects killed by it become so rigid that their wings, legs, &c., will break rather than bend, if touched. Next day, however, when the benzine has evaporated, suppleness is restored."

GARDEN WORK FOR FEBRUARY.

THE garden work in February is, of course, mainly preparatory. The earth is quietly slumbering under its cold white blanket, recruiting its energies for another season's work, and we will not disturb its repose.

But in the way of preparation for next spring's gardening much may now be done. Visit the *tool-house*, (for I suppose that every farmer or gardener has a tool-house, or a tool-*room*, or at the least a *side* or *corner* of a room devoted to tools, where every implement has its own nail or peg to hang on, and where it may always be found when not in use;) visit, I say, the place where the tools are kept, and see that they are all in good repair and bright for use. If any need repair, repair them; and if any are rusty, oil them, place them near the stove awhile, and then with a sand-paper scour them bright. One can work a great deal easier with a bright tool than with a rusty one. It is also a good plan to have your tools *sharp*. You can accomplish a great deal more with a sharp hoe or spade than with dull ones. A flat file three-fourths to an inch wide is the best implement wherewith to sharpen garden tools. Have your implements all bright and sharp to commence with, and then keep them so.

Seeds.—Look out for your garden seeds in time, and test them all before planting time arrives, or you may find out too late to repair the damage that some of your seeds will not grow. If you defer the purchase of your seeds until you are ready to plant them, you may find that your seedsman's supply of rare varieties is exhausted, and you may fail to obtain some choice kinds which you had set your heart upon. Seeds may be tested by planting in a shallow vessel of moist earth, and keeping them in a window of a warm room. If a considerable portion of the seeds fail under such favorable circumstances, they can not be trusted in the garden, or if sown at all should be sown very thick.

As a guide to those about to select seeds for the season, I give a list of the most approved leading varieties, maturing in their order in the list:

Asparagus.—Giant—the only variety.

Beans.—Dwarfs, Early Snap Shorts, Early Valentines, Early Mohawk, Early Rachel, are among the earliest; the Butter, although rather late, is the best for string beans, as the pods are thick and remain soft and tender a long time, even after they have become yellow.

Pole Beans.—London Horticultural, White Cranberry, Scarlet Running and *Large White Lima.*

Beets.—Extra Early Turnip, Early Blood Turnip, Long Smooth Blood.

Brocoli.—Early Purple Cape, White Cape.

Cabbage.—Early York, Earliest Dwarf, Early Sallisberry, Early Wakefield, Early Savoy, Early Dutch, Early Winningstadt, Early Oxheart, Large Flat Dutch, Large Late Drumhead, Late Drumhead, Savoy, Large Late Blood Red.

Carrot.—Early Horn, Long Orange, Altringham Long White.

Cauliflower.—Extra Early Erfurt, Early Paris, Thornburn's Nonpariel, Lenomard's.

Celery.—Early White Solid, Giant, White Solid, Turner's Incomparable, Dwarf White, Best Red Solid.

Corn.—Extra Early Dwarf Sugar, Early Darling's Sugar, Early Eight-Rowed Sugar, Asylum Sugar, Twelve-Rowed Sugar, *Stowell's Evergreen Sugar.*

Cress.—Curled Grass, Broad Leaved, Broad Leaved Winter, and Water Cress in running streams.

Cucumber.—Early Russian, Early White Spined, Long Green.

Egg Plant.—Early Long Purple, Round Purple Improved New York Purple.

Endive.—Green Curled, White Curled.

Kohl-Rabi or Turnip-Rooted Cabbage.—Large Early Purple, Large Early White, Large Late Green.

Lettuce—Early White Forcing, Ice Drumhead, Early Curled Silesia, Butter, Victoria Cabbage.

Musk Melon.—Fine White Japan, Jenny Lind, Fine Nutmeg, Green Citron, Skillman's Fine Netted, Persian.

Water Melon.—Early Mountain Sprout, Goodwin's Imperial, *Ice Cream*, Black Spanish, Orange.

Nasturtium—Okra.

Onions.—Early Red, Yellow Danvers, Large Red, Yellow Dutch, White Portugal, Red *Top* Onions, Potato Onions.

Parsley—Extra Curled.

Parsnep—Guernsey or Cup, Long White.

Peas—Daniel O'Rourke, Tom Thumb, Warner's Emperor. *Second early.*—Bishop's New Long Pod, Bishop's Dwarf, Prolific. *Third.*—Champion of England, Blue Imperial, Harrison's Glory, Late, White Marrowfat, British Queen, Lord Raglan.

Pepper—Sweet Spanish, Sweet Mountain, Large Bell, Long Cayenne.

Potato.—Early Sovereign, Early Cottage, Early Dykeman, Early Ash-leaved, Kidney, Mercer, Fluke, Peach Blow.

Pumpkin—Large Cheese, Cashaw.

Radish—Early Scarlet Turnip, Long Scarlet Short-Top, White Summer Turnip, Black Spanish, White Spanish.

Salsify or Oyster Plant.—Long White.

Spinach.—Round for summer, Prickly for autumn.

Squash.—Early Golden Bush, Early Green Striped Bush, Early White Scallop Bush, Summer Crookneck, Honolula, Boston Marrow, *Hubbard*, Winter Crookneck, Yokohama.

Tomato.—Early Red, Early Smooth Red, Large Smooth Red, Fejee Island, Lester's Perfected, Large Yellow.

Turnip—Early White Flat Dutch, Early Yellow Dutch, Red-Top Strap-Leaf, White Strap-Leaf, Yellow Swede.

The above list contains about all the varieties of garden vegetables that have been tested in different localities and found desirable.

Those wishing to experiment with new varieties can find them at most of the leading seed-stores.

A few gardeners may be anxious to start a hot-bed in February, but most, unless market gardeners, would prefer waiting until March. I gave in the *Farmer* for February, last year, a brief description of the way to make a hot-bed, to which article I would refer those who wish to start their bed this month.

P. C. R.

Ladies' Department.

MRS. STOWE ON BREAD AND BUTTER.

In the *Atlantic Monthly* for December there are some strictures on American housewifery, and especially cooking, by Mrs. H. B. Stowe, and her very great advantage of European travel give her opinions an additional value. Nevertheless, we are left in a quandary as to how we may profit by her reproofs. She tells us of our poor bread in a perfectly awful manner, of the chemical properties of bread, &c., &c., but ceases there. She hopes our American mothers will brew yeast as their grandmothers did, but does not tell us the process. Now this is the beginning of all good or evil in bread-making, and its importance can not be magnified. The same in butter. In this she goes so far as to say, "The great art is to churn it while it is sweet." I have looked in vain in all the essays I could find, both English and American that treated on this subject, but none recommend this in butter-making. The manner of thus making butter would be perfectly reckless and wasteful, besides, as I happen to know, producing butter not as sweet and well flavored as when the cream is soured. Now if our intellectual friend knows how all these things are done, which she undoubtedly does, why will not some of our agricultural committees offer her such remuneration for her labors as would induce her to come around in the Empire State and lecture to us on these important subjects—important, indeed, if "millions of pounds of butter are yearly manufactured in this country that is merely a hobgoblin bewitchment of cream into foul and loathsome poisons."

There might be some American housewives that could thus learn, whose opportunities or brains prohibit them from learning in the *Atlantic Monthly*. Probably in Europe they are now better skilled in these matters than when Professor Silliman traveled there, when the mind and appetite often roamed and longed for the good things at home. They have perhaps read some articles since in the *Genesee Farmer* bearing on these subjects. At any rate, I find my English neighbors (French we have none) that are settled around us quite as anxious to learn the right way to make bread and butter as we Americans are.

I doubt whether ever this war, destined to improve us in many ways, will ever so improve our national character that we shall relish the English butter without salt. A Frenchman has no faith that our cooking can be good, because to cook such a dinner as we cook in a few hours ought to take till midnight—entirely overlooking our national character—*that we work by steam!* and that in lieu of forty servants, oft-times in each other's way, the man or woman who has charge of these things superintends the details, which insures more expertness and directness, and we might suppose more intelligence. Now I fully concede that it takes good mental powers, much forethought and great reflection to be a good housewife and cook. Are American women so deficient in these qualities that they are incapable of equaling the women of other nations in this respect?—M. S. B., *Aurora, N. Y.*

THE WITCH PEN-WIPER.

Procure a brown wax doll, with an old woman's face, if possible; fix something on the back to have the appearance of stooping, and fold some cloth round the legs to serve for petticoats, and also for the purpose of wiping the pen. Put on an old-fashioned cotton skirt, and for the cloak cut out a piece of red cloth rather longer than the breadth, and a shoulder piece of the same material, and gather the cloak on to this; then cut out a cape long enough to cover the shoulders; sew this round the neck of the latter piece, bind it neatly, and also the cloak; tie round the neck a small red ribbon. first having cut out two holes for the arms.—Quill up some narrow lace for a cap, and make a large bonnet of black satin, with a high, old-fashioned crown, then put in the cap, rather near the edge of the bonnet, sewing it on to the head of the doll. Get a small basket, line it with pink glazed calico, and fill it up with small pin cushions, &c., and hang it on the arm of the old woman. In the hand place a small twig for a stick. When completed, it will make a pretty and useful ornament for a writing-table; or, if very neatly executed, they form pretty embellishments for the chimney piece or side-table.—*Godey's Lady's Book.*

Baked Beans.—Few people know the luxury of baked beans, simply because few cooks properly prepare them. Beans, generally, are not cooked half long enough. This is our method: Two quarts of middling sized white beans, two pounds of salt pork, and one spoonful of molasses. Pick the beans over carefully, wash, and add a gallon of boiling hot soft water; let them soak in it over night; in the morning put them in fresh water and boil gently till the skin is very tender and about to break, adding a teaspoonful of saleratus. Take them up dry and put them in your dish, stir in the molasses, gash the pork and put it down in the dish so as to have the beans cover all but the upper surface; turn in boiling water till the top is just covered; bake with a steady fire four or five hours. Watch them, and add more water from time to time as it dries away. [The foregoing is a first-rate receipt. Those who don't like the *idea* of the molasses may omit it, though it adds to the perfection of the dish.]—*Germantown Telegraph.*

A New Way of Cooking.—M. Rabinet, of the French Institute, is said to have discovered the means of cooking without fire. He has just laid before the French Academy the result of his experiments. His receipt is: Place your food in a black pot, covered with sundry panes of glass, and stand in the sun. The water soon boils, and the food is said to be of better flavor than if cooked in the ordinary way.

Our picture this month is one which we think all the children will like. One little chicken, with her night-cap on, looks very like some little girl roused out of a nap to hear the organ and see the monkeys; and we think that the big beetle acts the part of the monkey very well in handing the plate for pennies. We have no doubt, too, that he would fly up to the window more easily than the nimblest monkey could climb. Off in the distance are two peacocks who are too proud to come and listen to the hand-organ. People lose a good deal of pleasure by being proud.

What is the difference between a person transfixed with amazement and a leopard's tail? The one is rooted to the spot, the other spotted to the root.

Why do hens always lay in the day time? Because at night they become roost-ers.

GRAMMAR IN RHYME.

1. Three little words you often see,
Are Articles, *a*, *an* and *the*.

2. A Noun's the name of any thing,
As *school* or *garden*, *hoop* or *swing*.

3. Adjectives the kind of Noun,
As *great*, *small*, *pretty*, *white* or *brown*.

4. Instead of Nouns the Pronouns stand—
Her head, *his* face, *your* arm, *my* hand.

5. Verbs tell of something to be done—
To *read*, *count*, *sing*, *laugh*, *jump* or *run*.

6. How things are done the Adverbs tell,
As *slowly*, *quickly*, *ill* or *well*.

7. Conjunctions join the words together—
As men *and* women, wind *or* weather.

8. The Proposition stands before
A Noun, as *in* or *through* a door.

9. The Interjection shows surprise,
As *oh!* how pretty—*ah!* how wise.

The whole are called Nine Parts of Speech
Which reading, writing, speaking teach.

Miscellaneous.

TRY AGAIN.

BY ELIZA COOK.

Once Bruce of Scotland flung him down
In a lonely mood to think;
'Tis true he was a monarch and wore a crown,
But his heart was beginning to sink.

For he had been trying to do a great deed,
To make his people glad;
He had tried and tried, but he could n't succeed,
And his heart was sore and sad.

He flung himself down in sore despair,
As grieved as a man could be;
And as hour after hour he pondered there,
"I must give up at last," said he.

Now just at the moment a spider dropped
With his silken cobweb clue;
And the king, in the midst of his thinking, stopped
To see what the spider would do.

It soon began to cling and climb
Straight up with strong endeavor,
But down it came, time after time,
As near to the ground as ever.

But, nothing discouraged, again it went
And traveled a half-yard higher;
'T was a delicate thread it had to tread,
And a road where its feet would tire.

Again it fell and swung below,
But again it quickly mounted;
Till up and down, now fast, now slow,
Nine brave attempts were counted.

"Sure," cried the king, "the foolish thing
Will strive no more to climb,
When it toils so hard to reach and cling,
And tumbles every time."

But steadily upward, inch by inch,
Higher and higher it passed,
Till a bold little run, at the very last pinch,
Put it into its web at last.

"Bravo! bravo!" the king cried out,
"All honor to those who try!
The spider up there defied despair—
He conquered; why should n't I?"

And Bruce of Scotland braced his mind,
And, as gossips tell the tale,
He tried once more, as h'd tried before,
And that time he did not fail.

JERROLD and a company of literary friends were out in the country. In the course of their walk they stopped to notice the gambols of an ass's foal. A very sentimental poet present vowed that he should like to send the little thing as a present to his mother. "Do," Jerrold replied, "and tie a piece of paper round its neck, bearing this inscription: 'When this you see, remember me.'"

DR. MACKNIGHT, who was a better commentator than preacher, having been caught in a shower of rain, entered the vestry soaked with wet. As the time drew on for divine service he became much distressed, and ejaculated over and over, "Oh, I wish that I was dry! Do you think I'm dry? Do you think I'm dry enough noo?" To this his jocose colleague, Dr. Henry, the historian, returned: "Bide a wee, doctor, and ye'se be dry enough when you get into the pulpit."

"You have only yourself to please," said a married friend to an old bachelor. "True," replied he, "but you can not tell what a difficult task I find it."

CONJUGAL THERMOMETER.

THE *Nain Jaune* (Paris) relates the following anecdote: "At the commencement of the winter two journalists were in conversation at the opera. The one, M. de X., is a bachelor; the other, M. de Y., just married. 'Well,' said the one to the other, 'how do you get along in your new condition?' 'Ah, my dear X., there is nothing like being married! You can not imagine how happy I am. When I am at work my wife is at my side, and at the conclusion of each paragraph I embrace her. That is charming!' 'Now I understand,' was the happy retort of X., 'why your sentences are so short.' This conversation quickly spread through Paris. From that time forth the articles of Y. were consulted by the public as the thermometer of his conjugal felicity. During two months the prose of M. Y. was disjointed and epigrammatic, in shorter periods than are to be found in the earlier writings of Emile de Girardin. All the women grew jealous of Madame Y. But gradually the periods elongated, and at last Madame V. opened the journal edited by M. Y., and casting a rapid glance over the article signed with his name, cried, 'What! but a a single paragraph in the whole article! Poor woman! a divorce will most assuredly follow!'"

IN the course of an examination for the degree of B. A. under an examiner whose name was Payne, one of the questions was, "Give a definition of happiness;" to which the candidate returned the following laconic answer: "An exemption from Payne."

A VERY considerate hotel-keeper, advertising his "Burton XXXX," concludes the advertisement: "N. B. Parties drinking more than four glasses of this potent beverage at one sitting, carefully sent home gratis on a wheel-barrow, if required."

A REGULAR physician being sent for by a quack, expressed his surprise at being called in on an occasion apparently trifling. "Not so trifling, neither," replied the quack; for, to tell you the truth, I have, by mistake, taken some of my own pills."

AN ODD MISTAKE.—A lady asked a pupil at a public school, "What was the sins of the Pharisees?" "Eating camels, marm," quickly replied the child. She had read that the Pharisees "strained at gnats and swallowed camels."

ONE day, at a farm-house, a wag saw an old gobbler trying to eat the strings of some night-caps that lay on the grass to bleach. "That," said he, "is what I call an attempt to introduce cotton into turkey."

"GARDENING FOR LADIES" is all very well, but the dears are more inclined to agriculture than horticulture on account of a partiality for husbandry.

WHY are widows like smokers? Because they often find solace in their weeds.

WHY is a cow's tail like a swan's bosom? Because it grows down.

The Markets.

At this time last year, gold was 157. It is now 212. At the same time in 1863 it was 150. We have prepared from the *Genesee Farmer* the following table, showing the prices of farm produce in New York at this time (January 31) in the years 1863, 1864 and 1865. It is only by such comparisons that we can form a correct idea in regard to the state of the markets:

	1863.		1864.		1865.	
White Wheat	$1 60	@ 1 78	$1 70	@ 1 90	$2 50	@ 2 75
Red Wheat	1 50	@ 1 60	1 60	@ 1 73	2 10	@ 2 40
Corn	80	@ 88	1 25	@ 1 36	1 68	@ 1 90
Rye	80	@ 1 00	1 25	@ 1 50	1 65	@ 2 05
Barley	1 40	@ 1 65	1 25	@ 1 50	1 85	@ 2 05
Oats	70	@ 78	90	@ 98	1 00	@ 1 05
Beans, medium	2 25	@ 2 50	2 50	@ 2 90	2 75	@ 3 25
Butter, State	20	@ 30	27	@ 33	45	@ 60
Cheese	10	@ 14	19	@ 16¼	16	@ 28
Eggs, fresh, per doz	20	@ —	—	@ 33	48	@ 50
Turkeys	9	@ 18	19	@ 14½	20	@ 25
Chickens	8	@ 11	9	@ 12	16	@ 22
Ducks	11	@ 15	10	@ 13	22	@ 23
Geese	6	@ 10	7	@ 10	14	@ 17
Potatoes	1 50	@ 2 50	2 50	@ 2 50	3 00	@ 4 00
Apples	1 75	@ 2 00	2 00	@ 3 00	6 00	@ 7 50
Clover Seed, per lb	11	@ 11¾	18	@ 18¾	25	@ 28¾
Timothy Seed	2 25	@ —	3 00	@ 3 25	6 75	@ 7 00
Flax Seed	2 90	@ 3 00	3 25	@ 3 35	3 70	@ 4 00
Beef	8	@ 10	10	@ 13¾	11	@ 25
Sheep, live weight	—	@ 12	—	@ 8¾	9	@ 11¾
Hogs, dead weight	6	@ 7	9	@ 10	16½	@ 17½
Hops	25	@ 66	83	@ 85	20	@ 30
Wool	55	@ 66	85	@ 90	85	@ 1 10
Hay	18 00	@ 23 00	32 00	@ 37 00	32 00	@ 32 00

It will be seen that every thing except hay has advanced greatly since last year. The advance on most articles is far greater than the advance in gold.

It is worthy of mention that while wool advanced materially from 1863 to 1864, sheep declined very materially. Sheep are now much higher than in 1863.

The advance in beef, hogs and poultry is enormous. Mutton is comparatively low.

Beans are somewhat higher than last year, but the advance is far less than on other produce.

The Rural Annual and Horticultural Directory for 1865.

Owing to the difficulty of procuring paper, the printing of the *Rural Annual* has been delayed for two or three weeks. It is now ready, and all orders will be answered by return mail. We think this number of the *Rural Annual* is the best yet issued, and we particularly desire that every reader of the *Genesee Farmer* should have a copy. It is sent prepaid by mail for 25 cents, or in clubs of five and upwards in connection with the *Farmer* at 20 cents each.

Notes on the Weather for the last half of December, and some Results for the Year '64.

As the temperature of the first half of December was above the average, and the last half below, the mean of the month slightly exceeds the general average, or they are as 28.72° to 28.65. The mean heat of the last half was 27.73°. The snow-storm of the 21st and 22d gave us sleighing for a week, when the snow was too much melted.

The water fallen in the month was 2.67 inches. The barometer was low, being 29.31 inches for the month; and the temperature of the year 47.73°.

For the twenty-eight years the average temperature is 47.02°, and for twenty-seven years 47.00°.

For the twenty-eight years the average barometer is 29.53 inches.

For the twenty-eight years the average water is 32.47°.

The range of water, in the twenty-eight years, 34.35 to 42.59 inches.

The range of annual heat, in the twenty-eight years, 44.7° to 48.3°.

With much of plenty from agriculture, there has been a good degree of health, and, in the midst of war, much of prosperity.

A Splendid Premium.

In addition to the premiums offered on the last page of the *Farmer*, we take pleasure in offering the following splendid premium:

To any person who will send us 150 subscribers at our lowest club rates of 80 cents each, (or 100 at $1.00 each,) we will send one of Grover & Baker's Fifty-five Dollar Sewing Machines, either the new shuttle machine or the original Grover & Baker machine, as may be selected.

Do not wait to complete the list. Send on the names as fast as obtained, simply adding that you have not completed the list.

If you do not succeed in getting the requisite number, you can have other premiums to the amount sent.

To New Subscribers.

We have received an unusual number of new subscribers to the present volume of the *Genesee Farmer*. We would ask a favor at their hands: If pleased with the paper, will you show a copy to your neighbors and ask them to take it. It would not be a difficult matter to raise a club of five at 80 cents each, or at $1.00 each for the *Farmer* and *Rural Annual* together.

A Word to Every Subscriber.

If you are pleased with the *Genesee Farmer*, will you not show a copy of the paper to your friends and neighbors, and ask them to subscribe? We want ten thousand additional subscribers the present month; and recollect that *every one* counts.

Four Copies for Three Dollars.

Any subscriber who has sent one dollar for the *Farmer*, can have four more copies for three dollars, and a copy of the *Rural Annual* for getting up the club.

Bound Volumes of the Genesee Farmer.

THE *Genesee Farmer* for 1864 is now bound, and will be sent prepaid by mail to any address for $1.25.

The last *six* volumes of the *Farmer* (1859, '60, '61, '62, '63 and '64,) handsomely bound, with complete index, &c., will be sent by express to any address on receipt of FIVE DOLLARS! They could not now be printed for the money.

WE desire to thank our agents and friends for their efforts to increase the circulation of the *Genesee Farmer*. We shall endeavor to make the paper more interesting and useful than ever before, so that they need not feel ashamed of having said a good word for it to their neighbors. There is yet abundance of time to add additional names to clubs or to form new ones.

A CORRESPONDENT at Lincoln, Me., writes that he formerly took a weekly agricultural paper, but now by taking the monthly *Genesee Farmer* he is also able to take a weekly newspaper (at club rates), and obtains the two at less cost than the advance price of the agricultural weekly alone.

"Crowded Out."

SEVERAL communications and a number of "inquiries and answers," some of them already in type, are necessarily deferred until next month.

Special Notices.

Coe's Superphosphate of Lime.

[Letter from Mr. CHARLES BENOIT, farmer for Messrs. LOWE & CHAMBERLAIN at Dunham, Canada East.]

DECEMBER 30, 1864.

GENTLEMEN: The barrel of Superphosphate you sent me for the farm in the spring of 1863, was used by way of experiment on various crops. An acre of ground which had been in grass for many years and nearly run out, was plowed up that spring, and was sown with buckwheat without manure. I took three pecks of the Phosphate and sowed over one-half of the acre. From the time the buckwheat came up, until it was ripe, the difference in appearance was remarkable; the color was dark green; it grew very thick and about four feet tall; while the other half acre was not half so thick or tall, and was in all respects inferior. At the harvesting it yielded 17¾ bushels of grain; the other half 12 bushels, being nearly fifty per cent in favor of the Phosphate.

In the spring of the present year I sowed oats and peas on the same ground without any manure, and the effects of last year's application of Phosphate were as great upon this year's crop as upon that of last year, the growth being fully double that of the other half acre. The *extra fodder* will *alone pay* for the cost of the Phosphate. I have not yet threshed the oats and peas, but I am confident the difference in their yield will be equal to that of the buckwheat last year. So you see that as the extra fodder of this year will pay for the Phosphate, the extra yield of buckwheat, and of the peas and oats, are a clear gain of (I think) *four times its cost.*

I hope you will send a good supply for the farm for next spring, and I intend to get at least two barrels on my own account.

Your obedient servant, CHARLES BENOIT.

Messrs. LOWE & CHAMBERLAIN, Montreal, Proprietors of the Montreal Gazette.

☞ For sale by ANDREW COE, Proprietor, at Montreal, and by merchants in all the counties in Canada.

ADVERTISEMENTS.

A FEW short advertisements of interest to farmers—and only such—will be inserted in the GENESEE FARMER at twenty-five cents a line, or $2.50 per square, or $25 per column, each insertion, payable in advance.

THE GENESEE FARMER:

A MONTHLY JOURNAL OF AGRICULTURE AND HORTICULTURE.

Published at Rochester, N. Y., by

JOSEPH HARRIS.

Terms—INVARIABLY IN ADVANCE—One Dollar a year.

Silver Medal Wine.

VINES OF THE OPORTO

OF LARGE SIZE will be ready for planting April 1. Those who failed to get a supply last spring will please apply early. For terms to Agents and Clubs, and Descriptive Circulars address [f2t] E. WARE SYLVESTER, Lyons, N. Y.

BEECHER'S PATENT VENEER FRUIT BASKET.

AFTER one season's thorough trial of the VENEER FRUIT BASKET, we offer it to the trade with the full assurance that nothing of the basket line now in market can compete with it in its adaptability to the wants of fruit-growers. For durability and style our Basket has no superior, and for strength and cheapness no equal.

For circulars of description, &c., address

feb4t A. BEECHER & SONS, Westville, Conn.

WOOD-SAWING MACHINES.

I WOULD call the attention of the farmers to my new DRAG SAW, which, by a simple contrivance (patented April 21, 1863,) draws up the log without stopping, enabling the operator to do a greater amount of work, and with less labor, than by the ordinary machine. I also build small Light Power, suitable for sawing wood, cutting feed, &c., &c. Also, Circular Saws, &c.

Address J. W. MOUNT, Medina Iron Works,
1t* Medina, Orleans county, N. Y.

$125 a Month,

WANTED.—SEWING MACHINE AGENTS! Everywhere, to introduce the new *Shaw & Clark Sixteen Dollar Family Sewing Machine*, the *only* low price machine in the country which is *licensed* by Grover & Baker, Wheeler & Wilson, Howe, Singer & Co., and Bachelder. Salary and expenses, or large commissions allowed. *All* other Machines now sold for less than forty dollars each are *infringements*, and the seller and user *liable*. Illustrated circulars sent *free*. Address, SHAW & CLARK, Biddeford, Maine. dec3t

A PICTORIAL DOUBLE NUMBER.—THE PHRENOLOGICAL JOURNAL and LIFE ILLUSTRATED, for January, appears with 32 quarto pages, and a beautiful illustrated Cover. It contains Portraits of Tennyson, Silliman, Sheridan, Cobb, Phillips, Susanna Wesley—mother of John—an Indian Chief, Franz Muller, Miss Muggins, Miss Fury, the Princess of Wales, Florence Nightingale, A Group of Warriors—Hannibal, Julius Cæsar, Pizarro, Cromwell, Charles XII, Frederick the Great, Scott, Wellington and Napoleon, with ETHNOLOGY, PHRENOLOGY, PHYSIOGNOMY, PHYSIOLOGY, and PSYCHOLOGY. No. 1, Vol. 41st. Published at 20 cents a number, or $2.00 a year, by Messrs. FOWLER & WELLS, 389, Broadway, N. Y. j2t

"THE HUMAN FACE DIVINE." *A New System of Physiognomy—Eyes, Ears, Nose, Lips, Mouth, Head, Hair, Hands, Feet, Skin, with all* "SIGNS OF CHARACTER," *and How to Read Them, given in the* PHRENOLOGICAL JOURNAL AND LIFE ILLUSTRATED for 1865. S. R. WELLS, EDITOR. Portraits of Remarkable Men, in every calling, illustrating different Phases of Human Character, the sane and the insane, the virtuous and the vicious—PHYSIOGNOMY, ETHNOLOGY, PHRENOLOGY, PSYCHOLOGY, &c., in each number. New Volume, 41st, for 1865. Monthly. Only $2 a year. "Now is the time to subscribe." Sample numbers by first post, 20 cents. Please address Messrs. FOWLER & WELLS, 389 Broadway, New York. dec3t

TO FARMERS!

BRADLEY'S TOBACCO FERTILIZER, AND BRADLEY'S X L Superphosphate of Lime, are for sale at wholesale and retail by the Manufacturer. WM. L. BRADLEY:

Sales Office 24 Broad street, Boston.

☞ Pamphlets containing testimonials in favor of his Tobacco Fertilizer, Bradley's X L Manual on the Culture and Curing of Tobacco, with Illustrations, can be had by addressing the undersigned. WM. L. BRADLEY.

☞ Highest Cash prices paid for Bones. my

CHOICE SEED.

WITH the return of another season, I would invite the attention of the public to my ANNUAL CATALOGUE OF GARDEN SEEDS, including over two hundred varieties, many of which are of my own raising. I would call particular attention to the following list of new, rare, or very desirable vegetables:

Cannon Ball Cabbage (new, early, and the hardiest of all cabbage; the heads round and about as hard as a cannon ball!) Marblehead Mammoth Drumhead Cabbage (the largest cabbage in the world;) Stone Mason Cabbage (the best of all winter cabbage; the heads hard and very reliable;) Leorwand's Mammoth Cauliflower (the largest of all;) Mammoth French Squash (weighs from 100 to 200 lbs.;) Mammoth Sweet Corn (the largest sort known; selected from ears weighing from two to three pounds; very sweet; excellent for the table;) Yokohama Squash (new, from Japan;) American Turban Squash, (new, the dryest, sweetest, and best of all fall squashes—first-rate;) Striped Guadaloupe Egg Plant (quite ornamental;) New York extra large purple Egg Plant (the largest of all varieties.)

Ornamental Kale (several varieties in one package, fine for either the flower or kitchen garden;) Pierce's American Cauliflower (the standard late sort in Boston market;) Early Paris Cauliflower (imported seed—the best early sort;) Early White Japan Melon (new, very sweet, fine;) Ward's Nectar Melon (the sweetest, spiciest, best of all the green-fleshed varieties;) Caterpillar Plant (a curious vegetable; several varieties in one package;) Vegetable Snails (another natural curiosity.) Each of the above at 25 cents a package.

Forty Days Corn (extra early—about ten days earlier than Darling's Early;) Mexican Sweet Corn (the sweetest of all varieties of table corn;) Golden Sweet Corn (an early, prolific, sweet table corn, of a bright golden color, fine;) Hubbard Squash Seed (*true;* I introduced this;) Cow or Tree Cabbage (for stock;) Yard-long Beans; Extra Early York Tomato (very early, very prolific, of good size and excellent quality;) Cook's Favorite (very early apple tomato; prolific; of excellent quality;) Yellow Lupins (the plant so highly recommended for subsoiling in a recent Patent Office Report; highly ornamental;) Tom Thumb Pea (very early; grows 10 inches high; very productive;) Drew's New Dwarf Pea (new, early, very dwarf, very prolific, excellent pea, egg-shaped; each plant forms a bush; but one pea being required to about one foot of row;) Brown's New Dwarf Early Marrowfat Pea (a new variety which may be relied on as both the earliest and most dwarf Marrowfat grown; very prolific;) Improved Long Green Cucumber; six finest sorts of Cabbage Lettuce in one package; True Boston Curled Lettuce (the most elegant of all lettuces; quality good;) Ornamental Gourds (many varieties in one package;) Spotted Lima Bean; Concord Bean (a new pole bean, remarkably early; quality first-rate;) Extra Flat Beet, (new, very early, about as flat as a turnip; quality excellent;) Chick Peas (two sorts mixed; extensively used in Europe as a substitute for coffee;) Chinese Sugar Cane (pure; seed imported; New Jersey Hybrid Cucumber (one of the largest and best varieties cultivated;) Lester's Perfected Tomato (very large and thick-meated;) Sutton's Student's Parsnep (new; recently originated in England; desirable;) Chinese Rose Winter Radish (decidedly the best of all the winter sorts; an acquisition;) Hood's Dwarf Imperial Purple Celery (new; superior;) Indian Chief Bean (a pole bean; can be used as a string bean much later than any other variety; very productive.)

Seed of the above at 15 cents per package.

☞ Catalogues sent gratis to all. Those who purchased seed last season will receive it this without writing for it.

feb8t JAMES J. H. GREGORY, Marblehead, Mass.

Columbus Nursery,
Columbus, Ohio.

HANFORD & BRO. offer for the Spring of 1865 a large and well-assorted stock of

FRUIT AND ORNAMENTAL TREES,

EVERGREENS, ROSES, ORNAMENTAL SHRUBS, FINE GRAPES, SMALL FRUITS, &c., &c., to which they invite the attention of Nurserymen, Dealers and Planters who wish Trees, &c., of first-rate quality. Address,

HANFORD & BRO., Columbus, Ohio.

RED CEDARS, 4 to 12 inches, $6 per 1000.
HONEY LOCUST, fine one year plants, $10 per 1000.
PRIVET LOCUST, 1½ to 2 feet.
RED DUTCH, RED GRAPE and BLACK NAPLES CURRANTS, strong plants, at low rates.
HALE'S EARLY PEACH, the best very early Peach.
Also, a full assortment of Leading Market Varieties.
A large stock of NORWAY SPRUCE, 1½ to 3 feet, very fine.
feb8t HANFORD & BRO., Columbus, Ohio.

TRUE'S POTATO PLANTER—A one-horse machine, doing all the work of planting potatoes at one operation. Saves the labor of twelve men. Manufactured by

J. L. TRUE, Garland, Maine, Patentee and Proprietor.

☞ Send for a Circular. feb8t

SheepWash Tobacco

I hereby certify, that I have been familiar with all the processes employed by the South Down Company in the manufacture of their "Sheep Wash Tobacco," and that the article prepared under Mr. Jaques' Patent contains all the useful principles of the Tobacco in a concentrated form.

This Paste, employed as a Sheep Wash, according to the directions furnished by the Company, has the effect of curing Scab and other cutaneous diseases, and destroying all parasitic insects which infest the skin and wool of the Sheep, and thereby improves the health of the animal, as well as the quality of its fleece. Employed in the same way, the solution being made stronger, it will destroy those insects which infest the skins of larger animals, and also those that are injurious to vegetation.

CHARLES T. JACKSON, M. D.,
Assayer to the State of Massachusetts, and Consulting Chemist.

☞ Wool Growers should beware of any preparation that contains "sulphur," as it is sure to destroy the fibre of the wool. One pound of *Extract Tobacco* will make twelve gallons Wash, and contains the strength of eight pounds of Tobacco, as prepared by farmers.

Agents wanted in every Wool District.

JAMES F. LEVIN, *Agent South Down Co.*,
23 Central Wharf, Boston.

*** Farmers, preserve this advertisement, and ask your storekeepers to keep the Wash for sale. A liberal discount to the retailers. feb8t

THORBURN'S
CELEBRATED GARDEN SEEDS.

OUR DESCRIPTIVE CATALOGUE

of every Standard and improved variety of

VEGETABLE AND AGRICULTURAL

SEEDS
FOR
1865,

WITH DIRECTIONS FOR THEIR CULTIVATION,

has just been published, and will be mailed free on application to

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☞ Trade Catalogue for dealers only is also ready. 1t

Agricultural and Horticultural Books
FOR SALE BY
WILLIAM WOOD & CO.,
Publishers, Booksellers and Importers,
NO. 61 WALKER STREET, NEW YORK.

C. M. SAXTON having given up the book business, we have the balance of his stock, and have added to it a large variety of other works, making in all the largest assortment of works on Agricultural subjects to be found in this country.

We have just published the NINTH EDITION of MYSTERIES OF BEE-KEEPING EXPLAINED: by M. QUINBY, Practical Bee-keeper, in one handsome 12mo. volume, full gilt back. Price $1.75 by mail, free of postage. A PRACTICAL AND RELIABLE WORK.

☞ Send for our Catalogue. Books sent free of postage anywhere in the U. S. on receipt of the prices affixed.

☞ Shall be happy to answer all inquiries accompanied by a stamp to pay return postage. feb&ap

$80 PER MONTH.—AGENTS WANTED in every town. It is something new and of real value. For particulars, address, with stamp,

feb1t* J. S. PARDEE, Binghampton, N. Y.

GROVER & BAKER'S

HIGHEST PREMIUM

ELASTIC STITCH

AND

LOCK STITCH

SEWING MACHINES,

feb 495 Broadway, New York. tf

SUPERPHOSPHATE OF LIME,

BONE DUST AND MEAT AND BONE COMPOST.

MANUFACTURED BY

TASKER & CLARK,

Cor. 8th and Washington Sts., Philadelphia.

THE manufacturers offer their Superphosphate to the public confident that it will be found equal to any similar article now in the market. Being made from finely ground bones (not burned), Peruvian guano, and other ingredients having manurial properties, it has been found a superior fertilizer for wheat, grass, &c., &c. Price $65.00 per tun at the factory.

MEAT AND BONE COMPOST.—A valuable manure from refuse meat, bones and other offal from the slaughter-house. Price $40 per tun.

BONE DUST—Very fine and pure at $65.00 per tun.

☞ Terms Cash. Address as above.

feb7t TASKER & CLARK, Philadelphia, Pa.

NEW ILLUSTRATED CATALOGUE.

ROCHESTER CENTRAL NURSERIES.

SEND FOR A CATALOGUE

AND

SPECIAL TERMS OF SALE,

AND

ORDER YOUR TREES DIRECT.

Address C. W. SEELYE,

aptf Rochester Central Nurseries, Rochester, N. Y.

AMMONIATED PACIFIC GUANO.

A REAL GUANO, containing from seventy to eighty per cent. of Phosphate of Lime, to which has been added by a chemical process a large per centage of Ammonia, so fixed that it can not evaporate, making it equal, if not superior, to any other fertilizer.

Price, **$80** per nett tun. A liberal discount to the trade.

☞ Pamphlets, with copies of analysis by Dr. Jackson, Massachusetts State Assayer, and Dr. Liebig, of Baltimore, and testimonials from Scientific Agriculturists, showing its value, can be obtained from J. O. BAKER & CO., Selling Agents,

oct6t 181 Pearl street, New York.

CRANBERRY PLANTS—Of the Bell, Cherry and Bugle varieties. Send for Circular giving mode of culture, price, &c. Also, manufacturer of **Grafting Wax and Tree Varnish** for cuts and bruises on trees. A sure protection from Weather, and will heal sound wood. The Wax is also valuable for sealing Fruit Bottles. For sale by

oct6t F. TROWBRIDGE, Milford, Conn.

THE "PEOPLE'S" IMPROVED

Farm Mill.

Price of Mill Complete, Fifty Dollars.

MANUFACTURED BY

R. L. HOWARD,

BUFFALO, N. Y.

The attention of all interested in the subject of stock feed is respectfully called to the

IMPROVED "PEOPLE'S" FARM MILL.

The recent improvements made in this Mill make it the most desirable Mill for general use.

The peculiar operation of the Plates make this Mill self-sharpening.

Four movable and six stationary plates constitute the grinding surface, either of which can be replaced at an expense not to exceed 75 cents, so that this Mill can be renewed at an expense of $7.50.

The movable plates are operated by a double crank, with the power applied on them within one inch of the center of the shaft, giving them an Oscillating, Reciprocating and Longitudinal motion. Requires only

250 Revolutions per Minute,

and can be operated with any good two horse power.

It will grind corn at the rate of

SIX TO EIGHT BUSHELS PER HOUR,

in the best manner for Stock Feed, at least one-half being the best kind of Family Meal.

This Mill has been well tested, and the best of references can be given for their good working qualities.

They are simple and durable, take up but little room, weigh less than 800 pounds, and can be operated by

WATER, STEAM, RAILROAD OR SWEEP HORSE POWER.

The attention of Foundrymen and Machinists as well as dealers is called to this Mill, and in order to produce them at the lowest rates to the purchaser,

STATE AND COUNTY RIGHTS

will be sold on application to the undersigned.

Farmers wanting Mills, or others, would do well to purchase COUNTY RIGHTS, either alone or in Stock Companies.

Rights will be sold at prices to make it a liberal paying business.

It **R. L. HOWARD, Buffalo, N. Y.**

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STAMMERING—Cured by Bates Appliances. For Descriptive Pamphlet, &c., address

H. C. L. MEARS & CO.,

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North Devon Cattle.

The subscriber offers for sale at a bargain

FOUR PURE BRED DEVON HEIFERS

of different ages, (two are with calf,) and one superior first premium **DEVON BULL CALF.**

Address ARTHUR GILMAN,

j2t Glynllyn Farm, Lee, Mass.

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Nurseryman & Seed Grower,

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STRAWBERRY PLANTS A SPECIALITY.

☞ Fruit Trees, Vines, Shrubs, Garden Seeds, &c. Catalogues on application. septf

WHITTEMORE'S CURE FOR FOOT ROT IN SHEEP is a positive and speedy cure. Has been thoroughly tested, and never known to fail when applied correctly.

Sold by all Druggists.

Persons wishing to test a bottle can have it sent to any part of the country by express by enclosing 75 cents to the sole proprietor, F. W. WHITTEMORE, Chatham Four Corners, Columbia county, N. Y., to whom all orders should be addressed. A liberal discount made to wholesale buyers. jan6t

TWENTIETH ANNUAL VOLUME.

1865. THE HORTICULTURIST. 1865.

A Monthly Magazine for every one who has a

VINEYARD, ORCHARD OR GARDEN,

Who loves FRUIT and FLOWERS,

or has a HOME IN THE COUNTRY

to EMBELISH and BEAUTIFY.

The volume for 1865 will contain frequent articles from

The Author of "My Farm of Edgewood,"

Rev, Dr. E. H. Cressy,

The Author of "Ten Acres Enough,"

Francis Parkman,

E. S. Rand, Jr., Author of "Flowers for Parlor and Garden,

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RURAL ARCHITECTURE,

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TWO DOLLARS per annum. TWENTY CENTS per number.

Volumes 1863, 1864, bound, (by express,) and numbers 1865,..$5

Volumes 1862, '63, '64, bound, (by express,) and numbers '65,.. 7

GEO. E. & F. W. WOODWARD,

j2t **Publishers, 37 Park Row, New York.**

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JOURNAL,

AND FAMILY VISITANT,

Is a Monthly Magazine for Mothers and the Household. With nothing light or trashy, it is practical in purpose, substantial in matter, attractive in style, and furnishes a salutary Christian Literature for the Family. To aid Mothers in their noble but difficult work, and to make the household healthy, happy, useful and good is the object of the Journal.

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Single numbers, Fifteen Cents each.

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Send money by mail, at our risk, if properly directed.

Agents Wanted in every Church, Town and Village.

DIRECT ALL LETTERS TO

Mothers' Journal, 335 Broadway, N. Y.

$70 **A MONTH!**—I want Agents everywhere, at $70 a month, expenses paid, to sell *Fifteen Articles*, the best selling ever offered. Full particulars *free*. Address, OTIS T. GAREY, Biddeford, Maine. dec9t

HAVING had considerable experience among some of the first-class Artists and Engravers in New York, I have returned to Rochester and established myself at the Genesee Farmer Office, No. 62 Buffalo street, third story, where I am prepared to execute all orders for Engraving.

Machinery, Implements, Cattle, Horses, Sheep, Poultry, Pigs, Buildings, Plants, Flowers, Fruits, &c., promptly executed in the highest style of the art, and cheaper than any other establishment in Rochester. Orders by mail promptly attended to.

☞ Stereotypes and Electrotypes furnished at the lowest rates. Address

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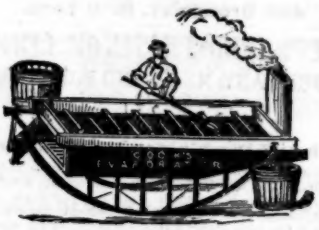

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BLYMYER, BATES & DAY,

Manufacturers, Mansfield, O.

☞ SEND FOR CIRCULARS. ja2t

Babbittonian Penmanship.

THIS SCIENTIFIC and SELF-TEACHING system, which is being ordered by the thousand and sent to every part of the Union, consists of nearly one hundred copies on self-explaining card-board copy slips, and will guide the learner to an elegant command of the pen without schools or teachers. Terms, post-paid to all parts of the Union, **$1.50.** Terms to Teachers and Clergymen, **$1.**

"The Babbittonian system of Penmanship is splendid."—*J. H. Myers, Spencerian Penman.*

"It is chaste and beautiful."—*New York Evangelist.*

"The most *scientific* and *beautiful* of systems. An editor of a religious journal has called it magnificent, and worth $5 instead of $1.50."—*Journal and Messenger.*

"Babbittonian Penmanship is far in advance of all other systems. 1st. It is more scientific. 2d. It gives a more complete elementary discipline. 3d. It is more beautiful. 4th. It is more practical."—*R. M. Boggs, formerly Spencerian Penman.*

"Admirably adapted to the end in view."—*N. Y. Observer.*

The system is unequaled for use of schools as well as private learners, great reduction being made. *Splendid terms offered to Agents.* A fine

GOLD MEDAL

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